INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

October 22, 2003

TO: Interested Parties / Applicant

RE: Naval Surface Warfare Center- Crane Division / 101-17239-00005

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot 9/16/03

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October 22, 2003

Mr. James Hunsicker
Naval Surface Warfare Center - Crane Division
300 Highway 361, Building 3260, Code 09510
Crane, Indiana 47522

Re: 101-17239-00005
Significant Source Modification to:
Part 70 permit No.:T101-7341-00005

Dear Mr. Hunsicker:

Naval Surface Warfare Center - Crane Division was issued Part 70 operating permit T101-7341-00005 on May 15, 2001 for a military base where ammunition, rockets, and other military ordnance are manufactured, stored, and disposed. An application to modify the source was received on February 14, 2003. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

One (1) APE 1236 rotary kiln incinerator, identified as P03 and constructed in 2003, used to deactivate the ammunition peculiar equipment, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Yu-Lien Chu, ERG,1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7871 to speak directly to Ms. Chu. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/YC

cc: File - Martin County
Martin County Health Department
Southwest Regional Office
Air Compliance Section Inspector - Gene Kelso
Compliance Data Section - Karen Nowak
Administrative and Development -Sara Cloe
Technical Support and Modeling - Michele Boner

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Naval Surface Warfare Center, Crane Division
300 Highway 361
Crane, Indiana 47522

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T101-7341-00005	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: May 15, 2001 Expiration Date: May 14, 2006

Significant Source Modification: No: 101-17239-00005	Affected Pages: 1, 4, 7, 9, 10, 13, 18, 19, 23, 24, 28, 30 through 41
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: October 22, 2003

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information in Sections A.1 through A.4 and in all Facility Description boxes in the D Sections is descriptive information and does not constitute enforceable conditions; however, the Permittee should be aware that physical changes or changes in the method of operation that may render this descriptive information obsolete or inaccurate may also trigger requirements for permits or permit modifications under 326 IAC 2.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a military base where ammunition, rockets and other military ordnance are manufactured, stored and disposed.

Responsible Official:	Environmental Director
Source Address:	300 Highway 361, Crane, Indiana 47522-5009
Mailing Address:	300 Highway 361, Building 3260, Code 09510, Crane, Indiana 47522
Phone Number:	(812) 854-3233
SIC Code:	9711, 3483
County Location:	Martin
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Seventeen (17) Abrasive Blasting Units:

(1) CRN-0104-03-23-HH16, located in Building 104, constructed in 1983, with a maximum capacity of 1000 lbs/yr (0.5 tons per year (TPY)) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-0104-03-23-HH16-S.

(2) CRN-0106-02-23-HH13, located in Building 106, constructed in 1988, with a maximum capacity of 3000 lbs/yr (1.5 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0106-02-23-HH13-S1, S2.

(3) CRN-0107-05-23-HH13, located in Building 107, constructed in 1980, with a maximum capacity of 4433 lbs/yr (2.2 TPY)abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-05-23-HH13-S.

(4) CRN-0107-06-23-HH13, located in Building 107, constructed in 1980, with a maximum capacity of 4433 lbs/yr (2.2 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-06-23-HH13-S.

(5) CRN-0107-07-23-HH13, located in Building 107, constructed in 1980, with a maximum capacity of 4433 lbs/yr (2.2 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-07-23-HH13-S.

(6) CRN-2171-01-17-DD22, located in Building 2171, constructed in 1970, with a maximum capacity of 1000 lbs/yr (0.5 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-2171-01-17-DD22-S.

(7) CRN-2521-07-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2521-07-02-J17-S.

(8) CRN-2521-08-02-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emission, and exhausting to stack CRN-2521-08-02-J17-S.

(9) CRN-2521-09-2-J17, located in Building 2521, constructed after 1987, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2521-09-2-J17-S.

(10) CRN-2930-06-17-V25, located in Building 2930, constructed in 1993, with a maximum capacity of 1000 lbs/yr (0.5 TPY)abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2930-06,07,08-17-V25-S.

(11) CRN-2930-07-17-V25, located in Building 2930, constructed in 1993,with a maximum capacity of 1000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2930-06,07,08-17-V25-S.

(12) CRN-2930-08-17-V25, located in Building 2930, constructed in 1993, with a maximum capacity of 1000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-2930-06,07,08-17-V25-S.

(13) CRN-3234-14-17-U26, located in Building 3234, constructed in 1993, with a maximum capacity of 36,036 lbs/yr (18.0 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-3234-14-17-U26-S.

(14) CRN-0107-08-23-HH13, located in Building 107, constructed in 1993, with a maximum capacity of 700 lbs/yr (0.4 TPY) abrasive used, using a baghouse to control particulate matter emissions, and exhausting to stack CRN-0107-08-23-HH13-S.

(15) CRN-0227-03-23-HH12, located in Building 227, constructed before 1991, with a maximum capacity of 3000 lbs/yr (1.5 TPY) abrasive used, using baghouse to control particulate matter emissions, and exhausting to stack CRN-0227-03-23-HH12-S.

(16) CRN-3168-03-17-V28, located in Building 3168, constructed in 1988, with a maximum capacity of 1000 lbs/yr (0.5 TPY) abrasive used, using a filter system to control particulate matter emissions, and exhausting to stack CRN-3168-03-17-V28-S.

(17) CRN-0107-09-23-HH13, located in Building 107, constructed in 1993, with a maximum capacity of 700 lbs/yr (0.35 TPY) abrasive used, using a baghouse to control emissions, and exhausting to stack CRN-0107-08-23-HH13.

(b) Thirty-three (33) boilers:

(1) Cleaver Brooks natural gas-fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

(2) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-03-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0115-03-23-GG12-S.

(3) Cleaver Brooks natural gas-fired boiler, identified as CRN-0128-01-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0128-01-17-W25-S.

(4) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-03-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0128-03-17-W25-S.

(5) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-01-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0140-01-17-Y25-S.

(6) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-02-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0140-02-17-Y25-S.

(7) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-01-17-CC23, located in Building 150, constructed in 1989, with a maximum capacity of 25.2 mmBtu/hr, and exhausting to stack CRN-0150-01-17-CC23-S.

(8) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-02-17-CC23, located in Building 150, constructed in 1972, with a maximum capacity of 17.5 mmBtu/hr, and exhausting to stack CRN-0150-02-17-CC23-S.

(9) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-03-17-CC23, located in Building 150, constructed in 1989, with a maximum capacity of 25.2 mmBtu/hr, and exhausting to stack CRN-0150-03-17-CC23-S.

(10) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-01-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 mmBtu/hr, and exhausting to stack CRN-0199-01-23-JJ14-S.

(11) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-02-23-JJ14, located in Building 199, constructed in 1978, with a

maximum capacity of 17.5 mmBtu/hr, and exhausting to stack CRN-0199-02-23-JJ14-S.

(12) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-01-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-1819-01-17-Y23-S.

(13) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-02-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-1819-02-17-Y23-S.

(14) Iron Fireman natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2692-01-17-W27, located in Building 2692, constructed in 1983, with a maximum capacity of 3.01 mmBtu/hr, and exhausting to stack CRN-2692-01-17-W27-S.

(15) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-01-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-01-12-M41-S.

(16) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-02-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-02-12-M41-S.

(17) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-03-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-03-12-M41-S.

(18) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-02-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-3234-02-17-U26-S.

(19) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-03-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-3234-03-17-U26-S.

(20) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-01-17-U26, located in Building 41, constructed in 1977, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0041-01-17-U26-S.

(21) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 mmBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(22) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0064-01-10-T27, located in Building 64, constructed in 1976, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0064-01-10-T27-S.

(23) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

(24) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-02-17-W25, located in Building 128, constructed in 1984, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0128-02-17-W25-S.

(25) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-01-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-01-10-S30-S.

(26) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-02-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-02-10-S30-S.

(27) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-01-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-01-17-W22-S.

(28) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-02-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-02-17-W22-S.

(29) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-01-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-01-10-T21-S.

(30) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-02-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-02-10-T21-S.

(31) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-01-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.38 mmBtu/hr, and exhausting to stack CRN-2523-01-9-K18-S.

(32) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-02-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 mmBtu/hr, and exhausting to stack CRN-2523-02-9-K18-S.

(c) Three (3) Carpentry Shops, identified as:

(1) CRN-0056-04-10-T21, located in Building 56, using a wood usage of 74,880 board feet per year, with a process weight rate of 0.14 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0056-04-10-T21-S.

(2) CRN-0224-02-23-HH12, located in Building 224, using a wood usage of 1,000,000 board feet per year, with a process weight rate of 0.69 tons per hour, equipped with a cyclone for particulate control, and exhausting to stack CRN-0224-02-23-HH12-S.

(3) CRN-2720-04-23-GG12, located in Building 2720, using a wood usage of 14,000 board feet per year, with a process weight rate of 0.25 tons per hour,

equipped with a cyclone for particulate control, and exhausting to stack CRN-2720-04-23-GG12-S.

(d) Twenty-nine (29) paint booths:

(1) CRN-0104-01-23-HH16, located in Building 104, constructed in 1983, using a water wall to control particulate matter emissions.

(2) CRN-0104-02-23-HH16, located in Building 104, constructed in 1983, using a water wall to control particulate matter emissions.

(3) CRN-0106-01-23-HH13, located in Building 106, constructed in 1960, using a water wall to control particulate matter emissions.

(4) CRN-0107-01-23-HH13, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(5) CRN-0107-02-23-HH13, located in Building 107, constructed in 1980, using a water wall to control particulate matter emissions.

(6) CRN-0107-03-23-HH13, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(7) CRN-0107-04-23-HH13, located in Building 107, constructed in 1980, using a wet wall to control particulate matter emissions.

(8) CRN-0136-01-17-Z26, located in Building 136, constructed in 1963, using a dry filter to control particulate matter emissions.

(9) CRN-0155-01-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(10) CRN-0155-02-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(11) CRN-0155-03-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(12) CRN-0155-04-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(13) CRN-0169-01-24-EE22, located in Building 169, constructed in 1950, using a dry filter to control particulate matter emissions.

(14) CRN-2520-01-17-Y26, located in Building 2520, constructed in 1968, using a water wall to control particulate matter emissions.

(15) Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of 120 units per hour, consisting of the following units:

(i) CRN-2728-01-12-N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(ii) CRN-2728-02-12-N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(iii) CRN-2728-03-12-N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(16) CRN-3234-09-17-U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(17) CRN-3234-10-17-U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(18) CRN-3234-15-17-U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(19) CRN-0109-01-23-GG14, located in Building 109, constructed in 1981, using a dry filter to control particulate matter emissions.

(20) CRN-0174-01-24-FF21, located in Building 174, constructed in 1986, using a dry filter to control particulate matter emissions.

(21) CRN-0198-01-23-II15, located in Building 198, constructed in 1975, using a dry filter to control particulate matter emissions.

(22) CRN-0227-01-23-HH12, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(23) CRN-0227-02-23-HH12, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(24) CRN-2074-03-16-DD13, located in Building 2074, constructed in 1987, using a dry filter to control particulate matter emissions.

(25) CRN-2697-01-17-W24, located in Building 2697, constructed in 1983, using a dry filter to control particulate matter emissions.

(26) CRN-2713-01-17-X23, located in Building 2713, constructed in 1979, using a dry filter to control particulate matter emissions.

(27) CRN-2805-01-23-GG19, located in Building 2805, constructed in 1969, using a dry filter to control particulate matter emissions.

(28) CRN-2805-02-23-GG19, located in Building 2805, constructed in 1995, using a dry filter to control particulate matter emissions.

(29) CRN-3168-02-17-V28, located in Building 3168, constructed in 1988, using a dry filter to control particulate matter emissions.

(e) One (1) Asphaltic Coating Operation, identified as CRN-0155-05-17-BB25, located in Building 155, with a maximum usage of 3.64 tons per hour, using an electrostatic precipitator for PM control, and exhausting to stack CRN-0155-05-17-BB25-S.

(f) Open Burning/Open Detonation:

(1) Open Burning of Ordnance at the Ammunition Burning Ground, identified as CRN-ABG-01-19-DD43, with a maximum usage of 2.3 mmlb/yr (1150 tons/yr) of Dunnage; 0.64 mmlb/yr (320 tons/yr) of Explosive; 4.7 mmlb/yr (2350 tons/yr) of Propellant.

(2) Open Detonation of Ordnance at the Demolition Range, identified as CRN-DR-01-24-KK21, with a maximum usage of 0.13 mmlb/yr (65 tons/yr) of Dunnage; 1.6 mmlb/yr (800 tons/yr) of Explosive; 0.52 mmlb/yr (260 tons/yr) of Propellant.

(3) Open Burning of Ordnance at the Old Rifle Range, identified as CRN-ORR-01-24-JJ24, with a maximum usage of 0.15 mmlb/yr (75 tons/yr) of Dunnage; 0.032 mmlb/yr (16 tons/yr) of Explosive; 0.012 mmlb/yr (6 tons/yr) of Propellant.

(4) Fast and Slow Cookoff at the Ordnance Test Area, identified as CRN-OTA-01-29-WW18, with a maximum usage of 10,000 units of various ordnance per year.

(g) One (1) Chromic Acid Anodizing Tank, identified as CRN-3234-13-17-U26, located in Building 3234, equipped with a packed-bed scrubber, and exhausting to stack CRN-3234-13-17-U26-S.

(h) One (1) Stripping Tank (open-top vapor degreaser), constructed in 1992, identified as CRN-3234-12-17-U26, located in Building 3234, and exhausting to stack CRN-3234-12-17-U26-S.

(i) One (1) Vapor Degreaser, identified as CRN-0106-03-23-HH13, located in Building 106, with a maximum Natural Orange usage of 0.5 gallons per day, equipped with cooling/condensing coils and a cover to control VOC emissions, and exhausting to stack CRN-0106-03-23-HH13-S.

(j) Mixing and pouring equipment in Building 200 used as a plastic bonded explosive line, constructed in 1984, consisting of mixing and pouring operations, using a carbon adsorption system with a wet scrubber to control particulate matter emissions.

(k) Explosive Bomb Loading Operation, constructed in 1987, consisting of:

(1) screening and weighing aluminum powder in Building 2714, using a baghouse for particulate control; and

(2) screening and weighing TNT in Building 153, using a wet scrubber for particulate control; and

(3) melting and mixing aluminum powder and TNT in Building 152, using a wet scrubber for particulate control.

(l) One natural gas-fired rotary kiln furnace in Building 69, used for white phosphorous conversion to phosphoric acid, constructed in 1983 and using a variable throat venturi scrubber to control particulate matter emissions.

(m) Service Station (Gasoline/Diesel Dispensing), identified as CRN-3280-04-17-X23, located in Building 3280, with a maximum usage of 350,000 gallons of unleaded gasoline per year, and 350,000 gallons of diesel per year.

(1) Two (2) Above ground vertical fixed-roof cone tanks, storing unleaded gasoline, constructed in 1995, identified as:

(A) CRN-3280-01-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m^3), and equipped with a vapor recovery system of 99.9+% removal efficiency;

(B) CRN-3280-02-17-X23, located in Building 3280, with a maximum capacity of 11,600 gallons (43.9 m^3), and equipped with a vapor recovery system of 99.9+% removal efficiency.

(n) Testing of Fuses, Boosters, and other Explosive Devices

(1) One (1) containment chamber in Building 2167, constructed in 1986, used to test burn pyrotechnic items.

(2) One (1) test cell in Building 3235, constructed in 1991, used to test lithium batteries, using a vertical packed-bed tower to control particulate matter emissions.

(3) One (1) containment chamber in Building 142, constructed in 1995, used to test detonation of fuses, boosters and other explosive devices, using a baghouse to control particulate matter emissions.

(o) Eighteen (18) autoclaves and one (1) belt flaker located in Building 160, used for the demilitarization of 750 pound bombs, with a combined maximum capacity of 2,000 lbs/hr, using six (6) wet scrubbers to control particulate matter emissions.

(p) One (1) C-4 extruder process line, located in Building 2172, with a maximum manufacturing capacity of forty (40) 1.2 pound C-4 blocks per minute.

(q) One (1) contained detonation chamber, identified as P01, located in Building 3339, with a maximum capacity of 7500 pounds per hour gross weight of munitions, 750 pounds per hour net explosive weight (NEW), equipped with one (1) baghouse for particulate control, and exhausting to stack S01.

(r) One (1) mobile plasma treatment system (MPTS), identified as P02, located near Building 69, with a maximum capacity of 3600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

(s) One (1) diesel-fueled 4160-volt, 1000 kW generator which powers the MPTS exhausting at stack S03.

(t) One (1) flare manufacturing process located in Buildings 2504 and 145, with a maximum manufacturing capacity of 180 pounds of magnesium teflon viton (MTV) compound per day.

(u) One (1) flare manufacturing process, located in Building 198, with a maximum manufacturing capacity of 150 pounds of magnesium teflon viton (MTV) compound per day, discharging to Stacks 1 through 11.

(v) One (1) APE 1236 rotary kiln incinerator, identified as P03, used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

(a) This stationary source also includes the following insignificant activities:

(1) Natural gas-fired combustion sources with heat input less than ten million (10,000,000) Btu per hour, identified as:

(A) Natural gas-fired boilers, existing and in operation before September 21, 1983, located in the following buildings:

(i) boiler in each of the following buildings: 1, 2, 4, 12, 14, 17, 18, 38, 45, 181, 224, 300, 479, 1817, 1909, 2037, 2038, 2044, 2059, 2074, 2167, 2506, 2516, 2682, 2693, 2701, 2720, 2721, 2748, 2749, 2889, 2931, 2964, 2987, 2993, 3006

(ii) boilers in each of the following buildings: 7, 2521

(B) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 5, 8, 10, 34, 36, 40, 47, 66, 77, 105, 128, 363, 365, 366, 966, 1141, 1149, 2036, 2041, 2045, 2694, 2807, 2921, 3109, 3149, 3168, 3173, 3188, 3234, 3235, 3239, 3243, 3250

(ii) two boilers in each of the following buildings: 39, 180, 364, 2035, 2674, 2906

(iii) four boilers in each of the following buildings: 3241, 3251

(2) Propane or liquified petroleum gas, or butane-fired combustion sources with heat input less than six million (6,000,000) Btu per hour.

(3) Fuel oil-fired combustion sources with heat input less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.

(A) 1.63 mmBtu fuel oil-fired boiler, constructed in July 1983, located in Building 74.

(B) 0.275 mmBtu/hr fuel oil-fired boiler, constructed in September 1990, located in Building 2918.

(C) Two (2) 1.3 mmBtu/hr natural gas/fuel oil-fired boilers, identified as Cleaver Brooks CRN-0180-01-17-W22 and CRN-0180-02-17-W22, constructed in 1999, located in Building 180.

(4) Equipment powered by internal combustion engines of less than 500,000 Btu/hour capacity, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.

(5) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage tank of less than 10,500 gallon capacity.

(6) A petroleum fuel, other than gasoline, dispensing facility, having a storage tank of less than 10,500 gallon capacity, and dispensing less than 230,000 gallons per month.

(7) Storage tanks less than one thousand (1,000) gallons in capacity with annual throughputs less than twelve thousand (12,000) gallons.

(8) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(9) Machining where an aqueous cutting coolant continuously floods the machine interface.

(10) Solvent recycling systems with less than 100 gallon batch capacity.

(11) Activities associated with the treatment of wastewater streams with an oil and grease content less than 1% by volume.

(12) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on site sewage treatment facility.

(13) Natural draft cooling towers circulating less than or equal to 340,000 gallons per day.

(14) Quenching operations used with heat treating processes.

(15) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(16) Paved and unpaved roads and parking lots with public access.

(17) Asbestos abatement projects regulated by 326 IAC 14-10.

(18) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment.

(19) Blowdown for any of the following: sight glass, boiler, compressors, pumps and cooling tower.

(20) On-site fire and emergency response training approved by the department.

(21) Gasoline generators not exceeding 110 hp.

(22) Diesel generators not exceeding 1800 hp.

(23) Natural gas turbines not exceeding 16,000 hp.

(24) Stationary fire pumps.

(25) Filter or coalescer media changeout.

(26) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(27) Activities with emissions equal to or less than thresholds:

Lead(Pb=0.6 ton/year or 3.29 lbs/day
Carbon Monoxide(CO)=25 lbs/day
Sulfur Dioxide(SO2)=5 lbs/hour or 25 lbs/day
Particulate matter(PM)=5 lbs/hour or 25 lbs/day
Nitrogen Oxides (NOx)=5 lbs/hour or 25 lbs/day
Volatile Organic Compounds (VOC)=3 lbs/hour or 15 lbs/day

(1) Alphos tank, located in Building 2521.
(2) Brown oxide line, located in Building 38
(3) Bubble tester. Located in Building 2931
(4) Coating, phosphorous, located in Building 1884
(5) Curing room, located in Building 3148
(6) Four (4) Detonations Cells, located in Building 142
(7) Electrical discharge, located in Building 198
(8) Environmental chamber, located in Building 2167
(9) Explosives chamber, located in Building 142
(10) Explosives removal (Steam-out and Autoclave), located in Building 160
(11) Explosives mixing, located in Building 200
(12) Explosives molding, located in Building 126
(13) Heating oil bath, located in Building 39
(14) Two (2) hood, fumes, located in 2940
(15) Hood, vent, located in Building 38
(16) Hood, vent, located in Building 174
(17) Hood, vent, located in Building 226
(18) One (1) incinerator used for the destruction of classified materials, located in Building 45
(19) Infrared dry, located in Building 2036
(20) Three (3) injection molders, located in Building 198
(21) IR Heater, located in Building 38
(22) Mold release unit, located in 226
(23) Oven, located in Building 2940
(24) Curing oven, located in Building 226
(25) Three (3) drying ovens, located in Building 3234
(26) Laboratory oven, located in Building 109
(27) Paint booth, located in Building 2044
(28) Fugitive emissions from painting
(29) Passivation process
(30) PDL Foam, located in Building 2698
(31) Plating lines A, B, and C, located in Building 3234
(32) Quench tank, located in Building 125
(33) Rust inhibitor, located in Building 1884
(34) Solvent hand wiping, located in Building 155
(35) Solvent System, located in Building 226
(36) Miscellaneous solvent usage in Building 2728
(37) Nineteen (19) above ground storage tanks
(38) Seventy (70) underground storage tanks
(39) One (1) fuel storage tank, located at Building 2760
(40) Paint stripper, resistant, located in Building 38
(41) Tank, brighteners, located at Building 1884
(42) Vapor carbon fluid, located in Building 125
(43) Washer, roller, located in Building 18
(44) Washout unit, located in Building 18
(45) Six (6) Underground Storage Tanks, identified as:
    (1) CRN-0003-02-17-U21
    (2) CRN-2737-06-12-M41
    (3) CRN-2737-07-12-M41

(4) CRN-2984-02-17-W22
(5) CRN-2984-03-17-W22
(6) CRN-3149-02-16-DD12

(46) Fourteen (14) Air Compressors:

(1) Davey, located in the Car Shop, with a maximum capacity of 365 acfm;
(2) Davey, located in Building 1820, with a maximum capacity of 365 acfm;
(3) Davey, located in Building 1820, with a maximum capacity of 365 acfm;
(4) Davey, located in Building 1820, with a maximum capacity of 365 acfm;
(5) Ingersoll, located in Building 1820, with a maximum capacity of 250 acfm;
(6) Davey, located in Building 1820, with a maximum capacity of 125 acfm;
(7) Sullair, located in Building 160, with a maximum capacity of 600 acfm;
(8) Sullair, located in Building 198, with a maximum capacity of 600acfm;
(9) Sullair, located in Building 105, with a maximum capacity of 750 acfm;
(10) Davey, located in Building 2391, with a maximum capacity of 125 acfm;
(11) Davey, located in Building 2394, with a maximum capacity of 125 acfm;
(12) Ingersoll, located at Sullivan Lake, with a maximum capacity of 375 acfm;
(13) Ingersoll, located in Building 224, with a maximum capacity of 750 acfm; and
(14) Ingersoll, located in Building 200, with a maximum capacity of 750 acfm.

(47) One (1) Krypton Leak Test Unit, constructed in 1990, identified as CRN-2931-05-17-V25, with a maximum capacity of 1.0 ci/year, and exhausting to stack CRN-2931-05-17-V25.

(48) One (1) Dispo Spray Booth, Model L130, with a maximum capacity of nine (9) twelve (12) ounce paint cans per month, with no overspray and used for repairing small microwave warfare components consisting of aluminum and glass.

(49) one (1) closed loop conversion process, used to convert ammonium picrate to picric acid with a maximum production capacity of 7 tons of picric acid per day, and exhausting to stacks S2 and V1.

(50) One (1) strand burner, located in Building 142, used for a maximum of 25 tests of differing materials per day, with no pollution control.

(28) Emissions from research and development activities as defined in 326 IAC 2-7-1(21)(E): One (1) experimental catalytic converter equipped diesel-fired generator, located at the test platform at Building 3235.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(b) Thirty-three (33) boilers:

(1) Cleaver Brooks natural gas-fired boiler, identified as CRN-0115-01-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0115-01-23-GG12-S.

(2) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-03-23-GG12, located in Building 115, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0115-03-23-GG12-S.

(3) Cleaver Brooks natural gas-fired boiler, identified as CRN-0128-01-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0128-01-17-W25-S.

(4) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-03-17-W25, located in Building 128, constructed in 1997, with a maximum capacity of 16.75 mmBtu/hr, and exhausting to stack CRN-0128-03-17-W25-S.

(5) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-01-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0140-01-17-Y25-S.

(6) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0140-02-17-Y25, located in Building 140, constructed in 1982, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0140-02-17-Y25-S.

(7) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-01-17-CC23, located in Building 150, constructed in 1989, with a maximum capacity of 25.2 mmBtu/hr, and exhausting to stack CRN-0150-01-17-CC23-S.

(8) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-02-17-CC23, located in Building 150, constructed in 1972, with a maximum capacity of 17.5 mmBtu/hr, and exhausting to stack CRN-0150-02-17-CC23-S.

(9) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0150-03-17-CC23, located in Building 150, constructed in 1989, with a maximum capacity of 25.2 mmBtu/hr, and exhausting to stack CRN-0150-03-17-CC23-S.

(10) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-01-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 mmBtu/hr, and exhausting to stack CRN-0199-01-23-JJ14-S.

(11) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0199-02-23-JJ14, located in Building 199, constructed in 1978, with a maximum capacity of 17.5 mmBtu/hr, and exhausting to stack CRN-0199-02-23-JJ14-S.

SECTION D.2 FACILITY OPERATION CONDITIONS (Continued)

Facility Description [326 IAC 2-7-5(15)]

(12) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-01-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-1819-01-17-Y23-S.

(13) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-02-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-1819-02-17-Y23-S.

(14) Iron Fireman natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2692-01-17-W27, located in Building 2692, constructed in 1983, with a maximum capacity of 3.01 mmBtu/hr, and exhausting to stack CRN-2692-01-17-W27-S.

(15) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-01-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-01-12-M41-S.

(16) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-02-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-02-12-M41-S.

(17) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-03-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-03-12-M41-S.

(18) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-02-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-3234-02-17-U26-S.

(19) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-03-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of 8.4 mmBtu/hr, and exhausting to stack CRN-3234-03-17-U26-S.

(20) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-01-17-U26, located in Building 41, constructed in 1977, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0041-01-17-U26-S.

(21) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 mmBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(22) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0064-01-10-T27, located in Building 64, constructed in 1976, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0064-01-10-T27-S.

SECTION D.2 FACILITY OPERATION CONDITIONS (Continued)

Facility Description [326 IAC 2-7-5(15)]

(23) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

(24) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-02-17-W25, located in Building 128, constructed in 1984, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0128-02-17-W25-S.

(25) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-01-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-01-10-S30-S.

(26) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-02-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-02-10-S30-S.

(27) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-01-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-01-17-W22-S.

(28) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-02-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-02-17-W22-S.

(29) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-01-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-01-10-T21-S.

(30) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-02-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-02-10-T21-S.

(31) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-01-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.38 mmBtu/hr, and exhausting to stack CRN-2523-01-9-K18-S.

(32) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-02-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 mmBtu/hr, and exhausting to stack CRN-2523-02-9-K18-S.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter Emissions Limitations [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emissions for Sources of Indirect Heating), the PM emissions from the following boilers which were existing and in operation or which received permits to construct prior to September 21, 1983 shall not exceed 0.05 pound per million Btu heat input (lb/mmBtu) for each boiler.

CRN-0041-01-17-U26, located in Building 41;
CRN-0041-02-17-U26, located in Building 41;
CRN-0064-01-10-T27, located in Building 64;
CRN-0140-01-17-Y25, located in Building 140;
CRN-0140-02-17-Y25, located in Building 140;
CRN-0149-01-10-S30, located in Building 149;
CRN-0149-02-10-S30, located in Building 149;
CRN-0150-02-17-CC23, located in Building 150;
CRN-0199-01-23-JJ14, located in Building 199;
CRN-0199-02-23-JJ14, located in Building 199;
CRN-1819-01-17-Y23, located in Building 1819;
CRN-1819-02-17-Y23, located in Building 1819;
CRN-2517-01-10-T21, located in Building 2517;
CRN-2517-02-10-T21, located in Building 2517;
CRN-2523-01-9-K18, located in Building 2523;
CRN-2523-02-9-K18, located in Building 2523; and
CRN-2692-01-17-W27, located in Building 2692,

This limitation was calculated using the following equation:

$$Pt = \frac{(C)\ (a)\ (h)}{76.5\ (Q^{0.75})\ (N^{0.25})}$$

Where C = 50 μ/m^3
Q = total source capacity (lbs/mmBtu)
N = number of stacks
a = 0.67
h = average stack height (feet)
Pt = pounds of particulate matter emitted per million Btu heat input (lb/mmBtu)

D.2.2 Particulate Matter Emissions Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emissions Limitations), particulate emissions from all boilers receiving permits to construct after September 21, 1983 shall not exceed 0.029 pound per million Btu heat input (lb/mmBtu) for each boiler.

CRN-0115-01-23-GG12, located in Building 115;
CRN-0115-02-23-GG12, located in Building 115;
CRN-0115-03-23-GG12, located in Building 115;
CRN-0128-02-17-W25, located in Building 128;
CRN-0150-01-17-CC23, located in Building 150;
CRN-0150-03-17-CC23, located in Building 150;
CRN-0180-01-17-W22, located in Building 180;
CRN-0180-02-17-W22, located in Building 180;
CRN-2737-01-12-M41, located in Building 2737;
CRN-2737-02-12-M14, located in Building 2737;
CRN-2737-03-12-M41, located in Building 2737;
CRN-3234-02-17-U26, located in Building 3234;
CRN-3234-03-17-U26, located in Building 3234,
CRN-0128-01-17-W25, located in Building 128; and
CRN-0128-03-17-W25, located in Building 128,

This limitation was calculated using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = pounds of particulate matter emitted per million Btu (lb/mmBtu) heat input.
Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input.

D.2.3 Sulfur Dioxide Emissions Limitations [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2, the following boilers:

CRN-0041-01-17-U26, located in Building 41;
CRN-0041-02-17-U26, located in Building 41;
CRN-0064-01-10-T27, located in Building 64;
CRN-0115-02-23-GG12, located in Building 115;
CRN-0115-03-23-GG12, located in Building 115;
CRN-0128-02-17-W25, located in Building 128;
CRN-0128-03-17-W25, located in Building 128;
CRN-0140-01-17-Y25, located in Building 140;
CRN-0140-02-17-Y25, located in Building 140;
CRN-0149-01-10-S30, located in Building 149;
CRN-0149-02-10-S30, located in Building 149;
CRN-0150-01-17-CC23, located in Building 150;
CRN-0150-02-17-CC23, located in Building 150;
CRN-0150-03-17-CC23, located in Building 150;
CRN-0180-01-17-W22, located in Building 180;
CRN-0180-02-17-W22, located in Building 180;
CRN-0199-01-23-JJ14, located in Building 199;
CRN-0199-02-23-JJ14, located in Building 199;
CRN-1819-01-17-Y23, located in Building 1819;
CRN-1819-02-17-Y23, located in Building 1819;
CRN-2517-01-10-T21, located in Building 2517;
CRN-2517-02-10-T21, located in Building 2517;
CRN-2523-01-9-K18, located in Building 2523;
CRN-2523-02-9-K18, located in Building 2523;
CRN-2692-01-17-W27, located in Building 2692;
CRN-2737-01-12-M41, located in Building 2737;
CRN-2737-02-12-M41, located in Building 2737;
CRN-2737-03-12-M41, located in Building 2737;
CRN-3234-02-17-U26, located in Building 3234; and
CRN-3234-03-17-U26, located in Building 3234,

shall each be limited to five-tenths (0.5) pounds per million Btu for distillate oil combustion.

D.2.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options:

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a certification;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.6 Visible Emissions Notations

(a) Visible emission notations of the boiler stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere and when combusting fuel oil only. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.7 Record Keeping Requirements

(a) To document compliance with Condition D.2.3, the Permittee shall maintain records in accordance with (1) through (6) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does not require the certification by the "A responsible official" as defined by 326 IAC 2-7-1(34); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications;

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the boiler stack exhausts.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.8 Reporting Requirements

The natural gas fired boiler certification reporting form shall be submitted when submitting monitoring, testing reports/results or other documents as required by this permit.

SECTION D.4 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(d) Twenty-nine (29) paint booths:

(1) CRN-0104-01-23-HH16, located in Building 104, constructed in 1983, using a water wall to control particulate matter emissions.

(2) CRN-0104-02-23-HH16, located in Building 104, constructed in 1983, using a water wall to control particulate matter emissions.

(3) CRN-0106-01-23-HH13, located in Building 106, constructed in 1960, using a water wall to control particulate matter emissions.

(4) CRN-0107-01-23-HH13, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(5) CRN-0107-02-23-HH13, located in Building 107, constructed in 1980, using a water wall to control particulate matter emissions.

(6) CRN-0107-03-23-HH13, located in Building 107, constructed in 1980, using a dry filter to control particulate matter emissions.

(7) CRN-0107-04-23-HH13, located in Building 107, constructed in 1980, using a wet wall to control particulate matter emissions.

(8) CRN-0136-01-17-Z26, located in Building 136, constructed in 1963, using a dry filter to control particulate matter emissions.

(9) CRN-0155-01-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(10) CRN-0155-02-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(11) CRN-0155-03-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(12) CRN-0155-04-17-BB25, located in Building 155, constructed in 1986, using a dry filter to control particulate matter emissions.

(13) CRN-0169-01-24-EE22, located in Building 169, constructed in 1950, using a dry filter to control particulate matter emissions.

(14) CRN-2520-01-17-Y26, located in Building 2520, constructed in 1968, using a water wall to control particulate matter emissions.

SECTION D.4 FACILITY CONDITIONS (Continued)

Facility Description [326 IAC 2-7-5(15)]

(15) Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of 120 units per hour, consisting of the following units:

(i) CRN-2728-01-12-N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(ii) CRN-2728-02-12-N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(iii) CRN-2728-03-12-N42, located in Building 2728, constructed in 1999, using a dry filter to control particulate matter emissions.

(16) CRN-3234-09-17-U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(17) CRN-3234-10-17-U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(18) CRN-3234-15-17-U26, located in Building 3234, constructed in 1994, using a dry filter to control particulate matter emissions.

(19) CRN-0109-01-23-GG14, located in Building 109, constructed in 1981, using a dry filter to control particulate matter emissions.

(20) CRN-0174-01-24-FF21, located in Building 174, constructed in 1986, using a dry filter to control particulate matter emissions.

(21) CRN-0198-01-23-II15, located in Building 198, constructed in 1975, using a dry filter to control particulate matter emissions.

(22) CRN-0227-01-23-HH12, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(23) CRN-0227-02-23-HH12, located in Building 227, constructed prior to 1991, using a dry filter to control particulate matter emissions.

(24) CRN-2074-03-16-DD13, located in Building 2074, constructed in 1987, using a dry filter to control particulate matter emissions.

(25) CRN-2697-01-17-W24, located in Building 2697, constructed in 1983, using a dry filter to control particulate matter emissions.

(26) CRN-2713-01-17-X23, located in Building 2713, constructed in 1979, using a dry filter to control particulate matter emissions.

(27) CRN-2805-01-23-GG19, located in Building 2805, constructed in 1969, using a dry filter to control particulate matter emissions.

SECTION D.4 FACILITY CONDITIONS (Continued)

Facility Description [326 IAC 2-7-5(15)]

(28) CRN-2805-02-23-GG19, located in Building 2805, constructed in 1995, using a dry filter to control particulate matter emissions.

(29) CRN-3168-02-17-V28, located in Building 3168, constructed in 1988, using a dry filter to control particulate matter emissions.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate Matter Emissions Limitations [326 IAC 6-3-2]

The PM from each paint booth shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

D.4.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

Pursuant to Significant Source Modification 101-11153-00005, the paint booths identified as:

(a) CRN-2728-01-12-N42, located in Building 2728; and

(b) CRN-2728-02-12-N42, located in Building 2728; and

(c) CRN-2728-03-12-N42, located in Building 2728,

(1) shall be limited to less than 40.0 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 40.0 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

(2) shall be limited to less than 25.0 tons of PM and less than 15.0 tons of PM_{10}. This usage limit is required to limit the potential to emit of PM_{10} to less than 25.0 tons of PM and 15.0 tons of PM_{10} per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.4.3 General Provisions Relating to VOC Rules: Military Specifications [326 IAC 8-1-7] and Site-specific RACT Plan [326 IAC 8-1-5]

(a) Pursuant to 326 IAC 8-1-7 (Military Specifications) and Significant Source Modification 101-11153-00005, the volatile organic compound (VOC) content of coating delivered to the following:

Bomb Finishing Line, with a maximum capacity of thirteen (13) units per hour and Projectile Renovation Operations with a maximum capacity of 120 units per hour, consisting of the following units:

(1) CRN-2728-01-12-N42, located in Building 2728, constructed in 1999;
(2) CRN-2728-02-12-N42, located in Building 2728, constructed in 1999;
(3) CRN-2728-03-12-N42, located in Building 2728, constructed in 1999,

shall be limited to 5.45 pounds of VOCs per gallon of coating less water, for air dried coatings for each paint booth.

(b) Pursuant to 326 IAC 8-1-7 (Military Specifications) and Site-specific RACT plan [326 IAC 8-1-5] the volatile organic compounds (VOC) content of coating delivered to the following:

(1) CRN-0104-01-23-HH16, located in Building 104, constructed in 1983;
(2) CRN-0104-02-23-HH16, located in Building 104, constructed in 1983;
(3) CRN-0107-01-23-HH13, located in Building 107, constructed in 1980;
(4) CRN-0107-02-23-HH13, located in Building 107, constructed in 1980;
(5) CRN-0107-03-23-HH13, located in Building 107, constructed in 1980;
(6) CRN-0107-04-23-HH13, located in Building 107, constructed in 1980;
(7) CRN-0155-02-17-BB25, located in Building 155, constructed in 1986;
(8) CRN-0155-03-17-BB25, located in Building 155, constructed in 1986;
(9) CRN-0155-04-17-BB25, located in Building 155, constructed in 1986; and
(10) CRN-2697-01-17-W24, located in Building 2697, constructed in 1983;

shall be limited to no greater than 5.45 pounds of VOCs per gallon of coating less water, for air dried coatings for each paint booth.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.4.4 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to each of the following paint booths shall be limited to 3.5 pounds of VOCs per gallon of coating less water averaged on a daily basis for each paint booth:

(a) CRN-3234-09-17-U26, located in Building 3234, constructed in 1994; and
(b) CRN-3234-10-17-U26, located in Building 3234, constructed in 1994; and
(c) CRN-3234-15-17-U26, located in Building 3234, constructed in 1994; and
(d) CRN-0109-01-23-GG14, located in Building 109, constructed in 1981; and
(e) CRN-0174-01-24-FF21, located in Building 174, constructed in 1986; and
(f) CRN-0227-01-23-HH12, located in Building 227, constructed prior to 1991; and
(g) CRN-0227-02-23-HH12, located in Building 227, constructed prior to 1991; and
(h) CRN-3168-02-17-V28, located in Building 3168, constructed in 1988.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.4.6 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.4.2, D.4.3, and D.4.4, shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.4.7 VOC Emissions

Compliance with Conditions D.4.2, D.4.3, and D.4.4 shall be demonstrated at the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

D.4.8 Particulate Matter (PM)

The dry filters and water walls for PM control shall be in operation at all times the paint booths are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.9 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. Daily inspections shall be performed for the water walls and wet walls to verify the level where surface agitation indicates impact of the air flow. Water shall be kept free of solids and floating material that reduces the capture efficiency of the water walls and wet walls. To monitor the performance of the water walls and wet walls and the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.10 Record Keeping Requirements

(a) To document compliance with Conditions D.4.2. D.4.3, and D.4.4, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.4.2. D.4.3, and D.4.4.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records

shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The volume weighted VOC content of the coatings used for each month;

(4) The cleanup solvent usage for each month;

(5) The total VOC usage for each month; and

(6) The weight of VOCs emitted for each compliance period.

(b) To document compliance with Condition D.4.9, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.19 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] Insignificant Activities:

(1) Natural gas-fired combustion sources with heat input less than ten million (10,000,000) Btu per hour:

(A) Natural gas-fired boilers, existing and in operation before September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 2, 4, 12, 14, 17, 18, 38, 45, 181, 224, 300, 479, 1817, 1909, 2037, 2038, 2044, 2059, 2074, 2167, 2506, 2516, 2682, 2693, 2701, 2720, 2721, 2748, 2749, 2889, 2931, 2964, 2987, 2993, 3006

(ii) two boilers in each of the following buildings: 7, 2521

(B) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 5, 8, 10, 34, 36, 40, 47, 66, 77, 105, 128, 363, 365, 366, 966, 1141, 1149, 2036, 2041, 2045, 2694, 2807, 2921, 3109, 3149, 3168, 3173, 3188, 3234, 3235, 3239, 3243, 3250

(ii) two boilers in each of the following buildings: 39, 180, 364, 2035, 2674, 2906

(iii) four boilers in each of the following buildings: 3241, 3251

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitations and Standards [326 IAC 2-7-5(1)]

D.19.1 Particulate Matter Emissions Limitations [326 IAC 6-2-3]

(a) Pursuant to 326 IAC 6-2-3 (Particulate Matter Emissions for Sources of Indirect Heating), the PM emissions from the boilers listed in subsection (1) above which were existing and in operation prior to September 21, 1983 shall not exceed the pound per million Btu heat input (lb/mmBtu) using the following equation from each boiler.

$$Pt = \frac{(C)\,(a)\,(h)}{76.5\,(Q^{0.75})\,(N^{0.25})}$$

Where C = 50 μ/m^3
Q = total source capacity (lbs/mmBtu)
N = number of stacks
a = 0.67
h = average stack height (feet)
Pt = pounds of particulate matter emitted per million Btu heat input (lb/mmBtu)

(b) Pursuant to 326 IAC 6-2-3(d), particulate emissions from all boilers existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 lb/mmBtu heat input.

(c) Pursuant to 326 IAC 6-2-3(e), particulate emissions from all boilers which began operation after June 8, 1972, shall in no case exceed 0.6 lb/mmBtu heat input.

D.19.2 Particulate Matter Emissions Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emissions Limitations), particulate emissions from the boilers listed in subsection (2) above which were constructed after September 21, 1983 shall not exceed the pound per million Btu heat input (lb/mmBtu) using the following equation from each boiler.

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = pounds of particulate matter emitted per million Btu (lb/mmBtu) heat input.
Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input.

D.19.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

SECTION D.22 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(r) One (1) mobile plasma treatment system (MPTS), identified as P02, located near Building 69, with a maximum capacity of 3600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

(s) One (1) diesel-fueled, 4160-volt, 1000 kW generator which powers the MPTS exhausting at stack S03.

(v) One (1) APE 1236 rotary kiln incinerator, identified as P03, used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.22.1 PSD Minor Net Emission Increase Limit [326 IAC 2-2][40 CFR 52.21]

(a) The MPTS shall be limited to 1800 hours per year and the total amount of diesel fuel used in the generator engine shall be limited to 89,604 gallons per twelve (12) consecutive month period with compliance determined at the end of each month. This will limit the NOx emissions from the MPTS (with generator) to less than 25.41 tons per year and the CO emissions to less than 2.91 tons per year. These limits, together with the limits on the CDC in Condition D.21.1, are required to limit the potential to emit of NOx and CO to less than 40 tons and 100 tons, respectively, per twelve (12) consecutive month period. Compliance with these limits makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

(b) The net explosive weight (NEW) of the materials fed into the APE 1236 incinerator (P03) shall not exceed 347 tons per consecutive twelve (12) month period with compliance determined at the end of each month. This is equivalent to 39.9 tons/yr of NO_x emissions, which is less than 40 tons/yr.

(c) The baghouse C07 shall be in operation at all times when the APE 1236 incinerator (P03) is in operations. This is equivalent to 0.35 tons/yr of PM/PM10 emissions from incinerator P03, which is less than 25 tons/yr for PM and less than 15 tons/yr for PM10.

Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.22.2 RCRA Air Standards and Limitations

The Permittee shall comply with all self-implementing provisions of any future air regulations promulgated under the provisions of Section 30004(n) of RCRA, as amended by HSWA.

D.22.3 Incinerator Requirements [326 IAC 4-2]

Pursuant to 326 IAC 4-2, the MPTS (P02) and the APE 1236 (P03) incinerator shall:

(a) Consist of primary and secondary chambers or the equivalent;

(b) Be equipped with a primary burner unless burning wood products;

(c) Comply with 326 IAC 5-1 and 326 IAC 2;

(d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c); and

(e) Not emit particulate matter in excess of three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard condition corrected to fifty percent (50%) excess air.

If any of the above requirements are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

D.22.4 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the MPTS (P02) and the APE 1236 incinerator (P03) as described in this section except when otherwise specified in 40 CFR 63, Subpart EEE.

D.22.5 NESHAP Emissions Limitation [40 CFR 63.1203(b), Subpart EEE]

The following emission limits apply to the MPTS (P02) and the APE 1236 (P03):

(a) Dioxin/Furan emissions shall not exceed 0.20 nanograms toxicity equivalent (TEQ) per dry standard cubic meter corrected to seven percent oxygen.

(b) Mercury emissions shall not exceed 45 micrograms per dry standard cubic meter corrected to seven percent oxygen.

(c) Lead and cadmium combined emissions shall not exceed 120 micrograms per dry standard cubic meter corrected to seven percent oxygen.

(d) Arsenic, beryllium, and chromium combined emissions shall not exceed 97 micrograms per dry standard cubic meter corrected to seven percent oxygen.

(e) Carbon monoxide and hydrocarbon emissions shall comply with either (1) or (2) below:

(1) Hydrocarbons in the main stack shall not exceed 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to seven percent oxygen, and reported as propane; or

(2) Carbon monoxide in the main stack shall not exceed 100 parts per million by volume, over an hourly rolling average monitored continuously with a continuous emissions monitoring system (CEMS), dry basis and corrected to seven percent oxygen; and in addition, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by 40 CFR 63.1206(b)(7), hydrocarbons shall not exceed 10 parts per million by volume over an hourly rolling average (monitoring continuously with a CEMS), dry basis, corrected to seven percent oxygen, and reported as propane.

(f) Hydrochloric acid and chlorine gas combined emissions shall not exceed 21 parts per million by volume, expressed as hydrochloric acid equivalents, dry basis, corrected to seven percent oxygen.

(g) Particulate matter (PM) emissions shall not exceed 34 milligrams per dry standard cubic meter.

(h) When hazardous waste is not in place and the Permittee has documented in the operating record that the source is complying with all other applicable requirements of this permit, 40 CFR Subpart EEE shall not apply except for the notification, reporting, and record requirements of sections 63.1203 through 63.1205; the monitoring and compliance standards of this section and sections 63.1207 through 63.1209, except the modes of operation requirements of section 63.1209(q); and the notification, reporting, and recordkeeping requirements of sections 63.1210 through 63.1212.

D.22.6 Destruction and Removal Efficiency Standard [40 CFR 63.1203(c), Subpart EEE]

(a) The Permittee shall specify one or more principle organic hazardous constituents (POHCs) from the list of HAPs for each waste to be burned based on the degree of difficulty of treating that constituent and on its concentration or mass in the feed.

(b) The Permittee shall achieve a destruction and removal efficiency (DRE) of 99.99% for each POHC. DRE shall be calculated using the equation:

$$DRE = [1 - W_{out}/W_{in}] \times 100\%$$

Where:

W_{in} = mass feedrate of one POHC in a waste feedstream; and
W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere

D.22.7 Automatic Waste Feed Cutoff (AWFCO) [40 CFR 63.1206(c)(3), Subpart EEE]

The Permittee shall operate the MPTS (P02) and the APE 1236 incinerator (P03) with a functioning system that immediately and automatically cuts off the hazardous waste feed, except during a ramp down procedure under the following conditions:

(a) When any of the following are exceeded:

(1) Operating parameter limits specified under Condition D.22.15.

(2) an emission standard monitored by a CEMS, or

(3) the allowable plasma chamber pressure.

(b) When the span value of any CMS detector, except a CEMS, is met or exceeded;

(c) Upon malfunction of a CMS monitoring an operating parameter limit specified under Condition D.22.15 or an emission level; or

(d) When any component of the automatic waste feed cutoff system fails.

D.22.8 Establishing Feedrate Limits [40 CFR 63.1209]

(a) In order to demonstrate compliance with the destruction and removal efficiency of Condition D.22.6 and the standards of Condition D.22.5, the Permittee must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed. These limits must be established as the average of the maximum hourly rolling averages for each run. The Permittee must also establish a 12-hour rolling average limit for the feedrate of mercury, semivolatile and low volatile metals, chlorine and chlorides. [40 CFR 63.1209(j)(3), (k)(4), (l)(1), (n)(2), (o)(1)]

(b) Prior to feeding the material, the Permittee must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits.

(1) The Permittee must develop and implement a feedstream analysis plan and record it in the operating record. The plan must specify the parameters for which the Permittee will analyze each feedstream to ensure compliance with the operating parameter limits.

(2) The Permittee must submit the feedstream analysis plan to IDEM, OAQ for review and approval, if requested [40 CFR 63.1209(c)]

D.22.9 Plasma Chamber Leaks [40 CFR 63.1206(c)(5), Subpart EEE]

(a) The Permittee shall control plasma chamber leaks by:

(1) keeping the combustion zone sealed, or

(2) maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor.

(b) The leak control method must be specified in the operating record.

D.22.10 Operator Training and Certification [40 CFR 63.1206(c)(6), Subpart EEE]

(a) The Permittee shall establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions.

(1) The Permittee shall ensure that the MPTS (P02) and the APE 1236 incinerator (P03) are operated and maintained at all times by persons who are trained and certified to perform these duties.

(2) A certified control room operator must be on duty at the site at all times the source is in operation. A hazardous waste incinerator control room operator must:

(A) Be trained and certified under a site-specific, source-developed and implemented program that meets the requirements of paragraph 40 CFR 63.1206(c)(6)(v); or

(B) Be trained under the requirements of, and certified under, the American Society of Mechanical Engineers Standard Number QHO-1-1994 and QHO-la-1996 Addenda; or

(C) Be trained and certified under a state program.

(3) To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by paragraph 40 CFR 63.1206(c)(6)(v), control room operators must complete an annual review or refresher course.

(4) The Permittee shall record the operator training and certification program in the operating record.

D.22.11 Operation and Maintenance [326 IAC 2-7-5(13)][40 CFR 63.1206(c)(7), Subpart EEE]

(a) The Permittee must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the MPTS (P02) and the

APE 1236 incinerator (P03), including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.

(b) The plan must prescribe how the MPTS (P02) and the APE 1236 incinerator (P03) will be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.

(c) This plan ensures compliance with the operation and maintenance requirements of 40 CFR 63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions.

(d) The operating and maintenance plan must include a corrective measures plan that specifies the procedures the Permittee will follow in the case of a bag leak detection system alarm. The corrective measures plan must include, at a minimum, the procedures used to determine and record the time and cause of the alarm as well as the corrective measures taken to correct the control device malfunction or minimize emissions as specified below. Failure to initiate the corrective measures required by this paragraph is failure to ensure compliance with the emission standards.

(e) The Permittee must record the plan in the operating record.

D.22.12 Broken or Failed Bag Detection [40 CFR 63.1206(c) (7)(ii)(D)]

For the MTPS (P02) and the APE 1236 incinerator (P03), the Permittee must continuously operate a bag leak detection system that meets the specifications and requirements below and must comply with the corrective measures requirements of paragraph 40 CFR 63.1206(c)(7)(ii)(B):

(a) The bag leak detection system must be certified by the manufacturer to be capable of continuously detecting and recording particulate matter emissions at concentrations of 1.0 milligram per actual cubic meter, unless it is demonstrated, pursuant to 40 CFR 63.1209(a)(1), that a higher sensitivity would adequately detect bag leaks;

(b) The bag leak detection system sensor must provide output of relative particulate matter loadings;

(c) The bag leak detection system must be equipped with an alarm system that will sound an audible alarm when an increase in relative particulate loadings is detected over a preset level;

(d) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system;

(e) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time;

(f) Following initial adjustment, the Permittee must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except where detailed in the Operation and Maintenance Plan. The Permittee must not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection which demonstrates the baghouse is in good operating condition;

(g) For negative pressure or induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector shall be installed downstream of the baghouse and upstream of any wet acid gas scrubber; and

(h) Where multiple detectors are required, the system's instrumentation and alarm system may be shared among the detectors.

Compliance Determination Requirements

D.22.13 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1-3(i)(8)] [326 IAC 2-1.1-11] [40 CFR 63.1207, Subpart EEE]

(a) No later than six months after the MPTS (P02) and the APE 1236 incinerator (P03) begin operation, the Permittee shall demonstrate initial compliance with the emission limits established in Condition D.22.5 by commencing initial comprehensive performance tests in accordance with 40 CFR 63.1207 and Section C - Performance Testing. These tests shall also establish limits for the operating parameters as provided in 40 CFR 63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems (CMS). The testing must be completed within 60 days after the date of commencement. Comprehensive performance tests shall be repeated at least once every 61 months from the date of the most recent valid compliance demonstration. Based on the results of previous stack tests, IDEM may, at its discretion, allow the Permittee to skip one test cycle.

(b) The Permittee shall commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test. The testing must be completed within 60 days after the date of commencement. Confirmatory performance tests are conducted to:

(1) Demonstrate compliance with the dioxin/furan emission standard when the source operates under normal operating conditions; and

(2) Conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard under 40 CFR 63.1209(k).

(c) Pursuant to 326 IAC 3-6-3(b)(2), 40 CFR 63.7(e) and 40 CFR 63.1207(g), the tests shall be conducted under representative operating conditions.

(d) Pursuant to 326 IAC 3-6-3(b), during the performance tests, the MPTS (P02) and the APE 1236 incinerator (P03) must be operating at 95 percent of its maximum production capacity or more, or under other capacities or conditions specified and approved by IDEM, to be considered a valid test.

(e) The Permittee shall submit a site-specific test plan meeting the requirements of 40 CFR 63.1207(f) to the IDEM, OAQ at least:

(1) one year before a comprehensive performance test, and

(2) at least 60 days before a confirmatory performance test.

(f) The Permittee must establish separate semivolatile metal, low volatile metal, mercury, and total chlorine (organic and inorganic), and/or ash feedrate limits for each feedstream for which the comprehensive performance test feedstream analysis determines that these constituents are not present at detectable levels.

(g) Testing shall be conducted in accordance with Section C - Performance Testing.

D.22.14 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-7-6(1),(6)] [40 CFR 63, Subpart A]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), 326 IAC 2 and 40 CFR 63, Subpart EEE, a CEMS shall be installed, calibrated, maintained, and continuously operated pursuant to 326 IAC 3-5. The CEMS shall be installed and operational prior to conducting the performance tests required in Condition D.22.13. The CEMS shall meet the performance specifications of 326 IAC 3-5-2 and 40 CFR 63.8(c).

(b) Pursuant to 40 CFR 63, Subpart EEE, a CEMS shall be installed, calibrated, maintained, and operated to demonstrate compliance with the carbon monoxide and hydrocarbon limits specified in 40 CFR 63 and Condition D.22.5. An oxygen CEMS shall also be installed, calibrated, maintained, and operated to continuously correct the carbon monoxide and hydrocarbon levels to 7 percent oxygen. [40 CFR 63.1209(a)(1)(i)]

(c) The Permittee must install, calibrate, maintain, and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under Condition D.22.5(g). However, compliance with the requirement to install, calibrate, maintain and operate the PM CEMS in not required until such time that the EPA promulgates all performance specifications and operational requirements applicable to PM CEMS. [40 CFR 63.1209(a)(1)(iii)]

D.22.15 Monitoring [40 CFR 63.1209]

(a) To comply with the applicable feedrate limits established in Condition D.22.8, the Permittee must monitor and record feedrates as follows:

(1) Determine and record the value of the parameter for each feedstream by sampling and analysis or other method;

(2) Determine and record the mass or volume flowrate of each feedstream by a CMS. If the Permittee determines the flowrate of a feedstream by volume, the Permittee must determine and record the density of the feedstream by sampling and analysis (unless the constituent concentration in units of weight per unit volume (e.g.,mg/l) is reported); and

(3) Calculate and record the mass feedrate of the parameter per unit time.

(b) In order to demonstrate compliance with the destruction and removal efficiency standard of Condition D.22.6 and the emission standards of Condition D.22.5(a) for dioxins and furans, the Permittee must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The Permittee must document the temperature measurement location in the test plan. The limits must be established as minimum hourly rolling average limits as the average of the test run averages. [40 CFR 63.1209(j)(1) and (k)(2)]

(c) In order to demonstrate compliance with the destruction and removal efficiency standard of D.22.6 and the emission standards of D.22.5(a), (c), (d), (f) and (g) for dioxin and furans, semivolatile and low volatile metals, and hydrochloric acid and chlorine gas, the Permittee must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the Permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [40 CFR 63.1209(j)(2), (k)(3), (m)(2), (n)(5), and (o)(2)]

(d) In order to demonstrate compliance with the destruction and removal efficiency standard of Condition D.22.6, the Permittee must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained. [40 CFR 63.1209 (j)(4)]

(e) In order to demonstrate compliance with the dioxin and furan, semivolatile metals and low volatile metals standards of Condition D.22.5(a), (c) and (d), and for combustors equipped with fabric filters, the Permittee must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. The Permittee must establish the hourly rolling average limit as the average of the test run averages. [40 CFR 63.1209(k)(1) and (n)(1)]

(f) In order to demonstrate compliance with the particulate matter and semivolatile and low volatile standards of Condition D.22.5(c), (d) and (g), the Permittee must install, calibrate, operate, and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of paragraph 40 CFR 63.1209(m)(1)(iv)(A)(*1*) of this section. The Permittee must install, calibrate, and maintain the monitoring equipment in accordance with the equipment manufacturer's specifications. The recorder must record the detector responses at least every 60 seconds. [40 CFR 63.1209 (m)(1)(iv)(4)(B) and (n)(3)]

(g) In order to demonstrate compliance with the particulate matter standard of Condition D.22.5(g), the Permittee must establish a maximum ash feedrate limit as the average of the test run averages. [40 CFR 63.1209(m)(3)]

(h) In order to demonstrate compliance with the hydrochloric acid and chlorine gas standard of Condition D.22.5(f) for combustors equipped with dry scrubbers, the Permittee must establish the following operating parameter limits:

(1) *Minimum sorbent feedrate*. The Permittee must establish a limit on minimum sorbent feedrate on an hourly rolling average as the average of the test run averages.

(2) *Minimum carrier fluid flowrate or nozzle pressure drop*. The Permittee must establish a limit on minimum carrier fluid (gas or liquid) flowrate or nozzle pressure drop based on manufacturer's specifications.

(3) *Sorbent specifications*. The Permittee must specify and use the brand (i.e., manufacturer) and type of sorbent used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless the Permittee documents in the site-specific performance test plan that affect adsorption and establish limits on those parameters based on the sorbent used in the performance test. [40 CFR 63.1209(o)(4)]

(i) In order to demonstrate compliance with the D.22.9(a)(2), the Permittee must monitor the pressure instantaneously and the automatic waste feed cutoff system must be engaged when negative pressure is not maintained at any time.

(j) The Permittee must use CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits under this condition.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.22.16 Visible Emissions Notations

(a) Visible emission notations of the MPTS (P02) and the APE 1236 incinerator (P03) baghouse stack exhausts and the generator stack shall be performed once per shift during normal daylight operations when the MPTS (P02) and the APE 1236 incinerator (P03) are in operation. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19][40 CFR 63.1211]

D.22.17 Record Keeping Requirements

(a) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to IDEM, OAQ.

(b) To document compliance with Condition D.22.1(a), the Permittee shall maintain records of the hours of operation of the MPTS and the fuel usage by the generator.

(c) To document compliance with the NESHAP, the Permittee shall maintain all records required by 40 CFR 63.1210 and 40 CFR 63.1211, including, but not limited to, the following:

(1) All information (including reports and notifications) required by this rule recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1).

(2) All records as required by 40 CFR 63.10(b)(2) and (3) including:

(A) Documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9.

(B) Records of applicability determination, including supporting analyses.

(3) All records of CEMS data required by 40 CFR 63.10(c).

(d) To document compliance with Condition D.22.1(b), the Permittee shall maintain records of the total amount of the Net Explosive Weight (NEW) of the materials fed to the APE 1236 incinerator (P03) each month.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.22.18 Reporting Requirements

(a) The Permittee shall submit a semi-annual summary report which contains the information specified in 40 CFR 63.10(e)(3)(vi). If the total downtime for any CEMS or

any CMS for the reporting period is ten percent or greater of the total operating time for the reporting period, the Permittee shall submit an excess emissions and CMS performance report along with the summary report.

(b) To document compliance with the NESHAP 40 CFR 63, Subpart EEE, the Permittee shall report the information required by 40 CFR 63, Subpart EEE including, but not limited to the following:

(1) Compliance progress reports as required by 40 CFR 63.1211(b) and 40 CFR 63.10(d)(4).

(2) As required by 40 CFR 63.10(d)(2) and 40 CFR 63.1207(j) the Permittee shall report the results of performance tests as part of the notification of compliance status, required in Section C - NESHAP Notification and Reporting Requirements.

(3) As required by 40 CFR 63.10(d)(5), if actions taken by the Permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the startup, shutdown, and malfunction plan specified in 40 CFR 63.6(e)(3), the Permittee shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports.

(4) Pursuant to 40 CFR 63.10(d)(5)(ii), any time an action taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the Permittee shall report the actions taken for that event within two (2) working days after commencing actions inconsistent with the plan, by telephone call to the OAQ Compliance Section at (317) 233-5674 or facsimile (FAX) transmission at (317) 233-6865. The immediate report shall be followed by a letter within seven (7) working days after the end of the event, certified by the Permittee, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

(5) Pursuant to 40 CFR 63.1206(c)(3)(vi), the Permittee shall report excessive exceedances.

(6) Pursuant to 40 CFR 63.1206(c)(4)(iv), the Permittee shall report emergency safety vent openings.

(c) In addition to being submitted to the address listed in Section C - General Reporting Requirements, all reports submitted pursuant to 40 CFR 60, Subpart A, or 40 CFR 63, Subpart A shall also be submitted to the U.S. EPA at the following address:

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

A “responsible official” as defined by 326 IAC 2-7-1(34), shall certify the reports.

D.22.19 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.22.1(a) and D.22.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Naval Surface Warfare Center, Crane Division
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: 300 Highway 361, Building 3260, Code 09510, Crane, Indiana 47522
Part 70 Permit No.: 101-7341-00005
Source Modification No: 101-17239-00005
Facility: APE 1236 rotary kiln incinerator (P03)
Parameter: Net explosive weight (NEW) input
Limit: Less than 347 tons of NEW per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This month	Previous 11 months	12 months total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document for a Part 70 Significant Source Modification and a Part 70 Significant Permit Modification

Source Background and Description

Source Name:	Naval Surface Warfare Center - Crane Division
Source Location:	300 Highway 361, Crane, Indiana 47522
County:	Martin
SIC Code:	9711, 3483
Operation Permit No.:	T101-7341-00005
Operation Permit Issuance Date:	May 15, 2001
Significant Source Modification No.:	101-17239-00005
Significant Permit Modification No.:	101-17317-00005
Permit Reviewer:	ERG/YC

On August 20, 2003, the Office of Air Quality (OAQ) had a notice published in the Shoals News, Shoals, Indiana, stating that Naval Surface Warfare Center - Crane Division had applied for a Part 70 Significant Source Modification and a Part 70 Significant Permit Modification to construct and operate a rotary kiln incinerator with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On September 23, the Permittee submitted comments on the proposed the Part 70 Significant Source Modification and the Part 70 Significant Permit Modification. The summary of the comments is as follows:

Comment 1:

Due to the building demolitions, the following units no longer exist and should be removed from the revised permit.

(a) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2087-01-10-S30, located in Building 2087, constructed in 1978, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-2087-01-10-S30-S.

(b) Each of the boilers CRN-3234-02-17-U26 and CRN-3234-03-17-U26 has a maximum heat input rate of 8.4 MMBtu/hr, instead of 8.234 MMBtu/hr.

(c) The insignificant boiler at building 2088.

(d) The insignificant boiler at building 37.

(e) Air Compressor Davey, located in Building 1820, with a maximum capacity of 365 acfm.

(f) One (1) fuel cell power plant utilizing a fuel processor to extract hydrogen from natural gas to produce a maximum of 212 kW of net, continuous 480 volt, 3-phrase, ac electric power from natural gas.

Response to Comment 1:

Conditions A.2, A.3, D.2 and D.19 have been revised as follows as the result of this comment. The units listed in Condition A.2 have been renumbered due to these changes and there were no specifically applicable permit conditions for the air compressor and fuel cell power plant.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

(b) Thirty-three (33) boilers:

~~(14) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2087-01-10-S30, located in Building 2087, constructed in 1978, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-2087-01-10-S30-S.~~

(~~15~~**14**) Iron Fireman natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2692-01-17-W27, located in Building 2692, constructed in 1983, with a maximum capacity of 3.01 mmBtu/hr, and exhausting to stack CRN-2692-01-17-W27-S.

(~~16~~**15**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-01-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-01-12-M41-S.

(~~17~~**16**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-02-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-02-12-M41-S.

(~~18~~**17**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-03-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-03-12-M41-S.

(~~19~~**18**) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-02-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of ~~8.234~~ **8.4** mmBtu/hr, and exhausting to stack CRN-3234-02-17-U26-S.

(~~20~~**19**) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-03-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of ~~8.234~~ **8.4** mmBtu/hr, and exhausting to stack CRN-3234-03-17-U26-S.

(~~21~~**20**) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-01-17-U26, located in Building 41, constructed in 1977, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0041-01-17-U26-S.

(~~22~~**21**) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 mmBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(~~23~~**22**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0064-01-10-T27, located in Building 64, constructed in 1976, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0064-01-10-T27-S.

(~~24~~**23**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

(~~25~~**24**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-02-17-W25, located in Building 128, constructed in 1984, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0128-02-17-W25-S.

(~~26~~**25**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-01-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-01-10-S30-S.

(~~27~~**26**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-02-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-02-10-S30-S.

(~~28~~**27**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-01-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-01-17-W22-S.

(~~29~~**28**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-02-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-02-17-W22-S.

(~~30~~**29**) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-01-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-01-10-T21-S.

(~~31~~**30**) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-02-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-02-10-T21-S.

(~~32~~**31**) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-01-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.38 mmBtu/hr, and exhausting to stack CRN-2523-01-9-K18-S.

(~~33~~**32**) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-02-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 mmBtu/hr, and exhausting to stack CRN-2523-02-9-K18-S.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

(a) This stationary source also includes the following insignificant activities:

(1) Natural gas-fired combustion sources with heat input less than ten million (10,000,000) Btu per hour, identified as:

(A) Natural gas-fired boilers, existing and in operation before September 21, 1983, located in the following buildings:

(i) boiler in each of the following buildings: 1, 2, 4, 12, 14, 17, 18, 38, 45, 181, 224, 300, 479, 1817, 1909, 2037, 2038, 2044, 2059, 2074, ~~2088,~~ 2167, 2506, 2516, 2682, 2693, 2701, 2720, 2721, 2748, 2749, 2889, 2931, 2964, 2987, 2993, 3006

(B) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 5, 8, 10, 34, 36, ~~37,~~ 40, 47, 66, 77, 105, 128, 363, 365, 366, 966, 1141, 1149, 2036, 2041, 2045, 2694, 2807, 2921, 3109, 3149, 3168, 3173, 3188, 3234, 3235, 3239, 3243, 3250

(46) ~~Fifteen (15)~~ **Fourteen (14)** Air Compressors:

~~(4) Ingersoll, located in Building 1820, with a maximum capacity of 600 acfm;~~
(~~5~~**4**) Davey, located in Building 1820, with a maximum capacity of 365 acfm;
(~~6~~**5**) Ingersoll, located in Building 1820, with a maximum capacity of 250 acfm;
(~~7~~**6**) Davey, located in Building 1820, with a maximum capacity of 125 acfm;
(~~8~~**7**) Sullair, located in Building 160, with a maximum capacity of 600 acfm;
(~~9~~**8**) Sullair, located in Building 198, with a maximum capacity of 600acfm;
(~~10~~**9**) Sullair, located in Building 105, with a maximum capacity of 750 acfm;
(~~11~~**10**) Davey, located in Building 2391, with a maximum capacity of 125 acfm;
(~~12~~**11**) Davey, located in Building 2394, with a maximum capacity of 125 acfm;
(~~13~~**12**) Ingersoll, located at Sullivan Lake, with a maximum capacity of 375 acfm;
(~~14~~**13**) Ingersoll, located in Building 224, with a maximum capacity of 750 acfm; and
(~~15~~**14**) Ingersoll, located in Building 200, with a maximum capacity of 750 acfm.

~~(48) One (1) fuel cell power plant utilizing a fuel processor to extract hydrogen from natural gas to produce a maximum of 212 kW of net, continuous 480 volt, 3-phrase, ac electric power from natural gas.~~

(~~49~~**48**) One (1) Dispo Spray Booth, Model L130, with a maximum capacity of nine (9) twelve (12) ounce paint cans per month, with no overspray and used for repairing small microwave warfare components consisting of aluminum and glass.

(~~50~~**49**) one (1) closed loop conversion process, used to convert ammonium picrate to picric acid with a maximum production capacity of 7 tons of picric acid per day, and exhausting to stacks S2 and V1.

(~~51~~**50**) One (1) strand burner, located in Building 142, used for a maximum of 25 tests of differing materials per day, with no pollution control.

SECTION D.2 FACILITY OPERATION CONDITIONS (Continued)

Facility Description [326 IAC 2-7-5(15)]

(12) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-01-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-1819-01-17-Y23-S.

(13) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-1819-02-17-Y23, located in Building 1819, constructed in 1981, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-1819-02-17-Y23-S.

~~(14) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2087-01-10-S30, located in Building 2087, constructed in 1978, with a maximum capacity of 3.35 mmBtu/hr, and exhausting to stack CRN-2087-01-10-S30-S.~~

(~~15~~**14**) Iron Fireman natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2692-01-17-W27, located in Building 2692, constructed in 1983, with a maximum capacity of 3.01 mmBtu/hr, and exhausting to stack CRN-2692-01-17-W27-S.

(~~16~~**15**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-01-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-01-12-M41-S.

(~~17~~**16**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-02-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-02-12-M41-S.

(~~18~~**17**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2737-03-12-M41, located in Building 2737, constructed in 1987, with a maximum capacity of 12.5 mmBtu/hr, and exhausting to stack CRN-2737-03-12-M41-S.

(~~19~~**18**) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-02-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of ~~8.234~~ **8.4** mmBtu/hr, and exhausting to stack CRN-3234-02-17-U26-S.

(~~20~~**19**) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-3234-03-17-U26, located in Building 3234, constructed in 1992, with a maximum capacity of ~~8.234~~ **8.4** mmBtu/hr, and exhausting to stack CRN-3234-03-17-U26-S.

(~~21~~**20**) Superior natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-01-17-U26, located in Building 41, constructed in 1977, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0041-01-17-U26-S.

(~~22~~**21**) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0041-02-17-U26, located in Building 41, constructed in 1983, with a maximum capacity of 6.9 mmBtu/hr, and exhausting to stack CRN-0041-02-17-U26-S.

(~~23~~**22**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0064-01-10-T27, located in Building 64, constructed in 1976, with a maximum capacity of 10.0 mmBtu/hr, and exhausting to stack CRN-0064-01-10-T27-S.

SECTION D.2 FACILITY OPERATION CONDITIONS (Continued)

Facility Description [326 IAC 2-7-5(15)]

(~~24~~**23**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0115-02-23-GG12, located in Building 115, constructed in 1985, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0115-02-23-GG12-S.

(~~25~~**24**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0128-02-17-W25, located in Building 128, constructed in 1984, with a maximum capacity of 6.2 mmBtu/hr, and exhausting to stack CRN-0128-02-17-W25-S.

(~~26~~**25**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-01-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-01-10-S30-S.

(~~27~~**26**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0149-02-10-S30, located in Building 149, constructed in 1980, with a maximum capacity of 6.7 mmBtu/hr, and exhausting to stack CRN-0149-02-10-S30-S.

(~~28~~**27**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-01-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-01-17-W22-S.

(~~29~~**28**) Cleaver Brooks natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-0180-02-17-W22, located in Building 180, constructed in 1999, with a maximum capacity of 4.2 mmBtu/hr, and exhausting to stack CRN-0180-02-17-W22-S.

(~~30~~**29**) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-01-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-01-10-T21-S.

(~~31~~**30**) Kewanee natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2517-02-10-T21, located in Building 2517, constructed in 1981, with a maximum capacity of 4.85 mmBtu/hr, and exhausting to stack CRN-2517-02-10-T21-S.

(~~32~~**31**) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-01-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.38 mmBtu/hr, and exhausting to stack CRN-2523-01-9-K18-S.

(~~33~~**32**) Johnston natural gas and/or distillate fuel No.2-fired boiler, identified as CRN-2523-02-9-K18, located in Building 2523, constructed in 1983, with a maximum capacity of 17.4 mmBtu/hr, and exhausting to stack CRN-2523-02-9-K18-S.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.2.1 Particulate Matter Emissions Limitations [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emissions for Sources of Indirect Heating), the PM emissions from the following boilers which were existing and in operation or which received permits to construct prior to September 21, 1983 shall not exceed 0.05 pound per million Btu heat input (lb/mmBtu) for each boiler.

CRN-0041-01-17-U26, located in Building 41;

CRN-0041-02-17-U26, located in Building 41;
CRN-0064-01-10-T27, located in Building 64;
CRN-0140-01-17-Y25, located in Building 140;
CRN-0140-02-17-Y25, located in Building 140;
CRN-0149-01-10-S30, located in Building 149;
CRN-0149-02-10-S30, located in Building 149;
CRN-0150-02-17-CC23, located in Building 150;
CRN-0199-01-23-JJ14, located in Building 199;
CRN-0199-02-23-JJ14, located in Building 199;
CRN-1819-01-17-Y23, located in Building 1819;
CRN-1819-02-17-Y23, located in Building 1819;
~~CRN-2087-01-10-S30, located in Building 2087;~~
CRN-2517-01-10-T21, located in Building 2517;
CRN-2517-02-10-T21, located in Building 2517;
CRN-2523-01-9-K18, located in Building 2523;
CRN-2523-02-9-K18, located in Building 2523; and
CRN-2692-01-17-W27, located in Building 2692,

D.2.3 Sulfur Dioxide Emissions Limitations [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1-2, the following boilers:

CRN-0041-01-17-U26, located in Building 41;
CRN-0041-02-17-U26, located in Building 41;
CRN-0064-01-10-T27, located in Building 64;
CRN-0115-02-23-GG12, located in Building 115;
CRN-0115-03-23-GG12, located in Building 115;
CRN-0128-02-17-W25, located in Building 128;
CRN-0128-03-17-W25, located in Building 128;
CRN-0140-01-17-Y25, located in Building 140;
CRN-0140-02-17-Y25, located in Building 140;
CRN-0149-01-10-S30, located in Building 149;
CRN-0149-02-10-S30, located in Building 149;
CRN-0150-01-17-CC23, located in Building 150;
CRN-0150-02-17-CC23, located in Building 150;
CRN-0150-03-17-CC23, located in Building 150;
CRN-0180-01-17-W22, located in Building 180;
CRN-0180-02-17-W22, located in Building 180;
CRN-0199-01-23-JJ14, located in Building 199;
CRN-0199-02-23-JJ14, located in Building 199;
CRN-1819-01-17-Y23, located in Building 1819;
CRN-1819-02-17-Y23, located in Building 1819;
~~CRN-2087-01-10-S30, located in Building 2087;~~
CRN-2517-01-10-T21, located in Building 2517;
CRN-2517-02-10-T21, located in Building 2517;
CRN-2523-01-9-K18, located in Building 2523;
CRN-2523-02-9-K18, located in Building 2523;
CRN-2692-01-17-W27, located in Building 2692;
CRN-2737-01-12-M41, located in Building 2737;
CRN-2737-02-12-M41, located in Building 2737;
CRN-2737-03-12-M41, located in Building 2737;
CRN-3234-02-17-U26, located in Building 3234; and
CRN-3234-03-17-U26, located in Building 3234,

SECTION D.19 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)] Insignificant Activities:

(1) Natural gas-fired combustion sources with heat input less than ten million (10,000,000) Btu per hour:

(A) Natural gas-fired boilers, existing and in operation before September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 1, 2, 4, 12, 14, 17, 18, 38, 45, 181, 224, 300, 479, 1817, 1909, 2037, 2038, 2044, 2059, 2074, ~~2088,~~ 2167, 2506, 2516, 2682, 2693, 2701, 2720, 2721, 2748, 2749, 2889, 2931, 2964, 2987, 2993, 3006

(ii) two boilers in each of the following buildings: 7, 2521

(B) Natural gas-fired boilers, constructed after September 21, 1983, located in the following buildings:

(i) one boiler in each of the following buildings: 5, 8, 10, 34, 36, ~~37,~~ 40, 47, 66, 77, 105, 128, 363, 365, 366, 966, 1141, 1149, 2036, 2041, 2045, 2694, 2807, 2921, 3109, 3149, 3168, 3173, 3188, 3234, 3235, 3239, 3243, 3250

(ii) two boilers in each of the following buildings: 39, 180, 364, 2035, 2674, 2906

(iii) four boilers in each of the following buildings: 3241, 3251

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and a Part 70 Significant Permit Modification

Source Background and Description

Source Name:	Naval Surface Warfare Center - Crane Division
Source Location:	300 Highway 361, Crane, Indiana 47522
County:	Martin
SIC Code:	9711, 3483
Operation Permit No.:	T101-7341-00005
Operation Permit Issuance Date:	May 15, 2001
Minor Source Modification No.:	101-17239-00005
Minor Permit Modification No.:	101-17317-00005
Permit Reviewer:	ERG/YC

The Office of Air Quality (OAQ) has reviewed a modification application from Naval Surface Warfare Center - Crane Division (NSWC Crane) relating to the construction and operation of the following emission units and pollution control devices:

(v) One (1) APE 1236 rotary kiln incinerator, identified as P03, used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

History

On February 14, 2003, NSWC Crane submitted an application to the OAQ requesting to add one (1) APE 1236 rotary kiln incinerator (P03) with a maximum feed rate of 240 pounds of NEW per hour to their existing plant. This incinerator will be equipped with one (1) cyclone (C05), one (1) 8 MMBtu/hr natural gas-fired afterburner (C06), and one (1) baghouse (C07) for control. NSWC Crane is an existing military base where ammunition, rockets, and other military ordnance are manufactured, stored, and disposed. Their Part 70 permit (T101-7341-00005) was issued on May 15, 2001.

In a letter from the source received on July 25, 2003, the source indicated that paint booth CNR-0198-01-23-II15 was constructed in 1975, not 1980. In addition, the unit ID listed under condition D.4.3(b) did not match the unit ID in the description box. Therefore, IDEM, OAQ will correct these errors in the revised permit.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S03	Incinerator P03	32	1.6	11,697	550

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and the Part 70 Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 14, 2003. Additional information was received on March 13, 2003, March 14, 2003, April 17, 2003, April 23, 2003, June 25, 2003, and July 25, 2003 .

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 3).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	35.1
PM-10	35.1
SO_2	1.62
*VOC	0.33
*CO	1.06
NO_x	121

HAP's	Potential To Emit (tons/year)
Dibutylphthalate	0.11
2, 4 Dinitrotoluene	0.11
Hexachlorobenzene	0.11
Lead	0.12
Other HAPs	Negligible
TOTAL	0.45

*Note: The VOC, CO, and HAP control efficiencies of the afterburner C06 are unknown. Therefore, the listed VOC and CO emissions listed above are after control, and were calculated based on emission factors from stack testing results of similar units.

Justification for Modification

This modification is being performed through a Part 70 Significant Source Modification pursuant to 326 IAC 2-7-10.5(f)(4) as the potential to emit PM, PM10, and NOx is each greater than 25 tons/yr. The permit modification is being performed through a Part 70 Significant Permit Modification pursuant to 326 IAC 2-7-12(d) because this is a modification under a provision of Title I of CAA.

County Attainment Status

The source is located in Martin County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_x	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Martin County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) Martin County has been classified as attainment or unclassifiable for all other criteria pollutants and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Fugitive Emissions
Since this type of operation is not in one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	Greater than 250
PM-10	Greater than 250
SO_2	Greater than 100, Less than 250
VOC	Greater than 250
CO	Greater than 250
NOx	Greater than 250

(a) This existing source is a major stationary source because at least one of the attainment regulated pollutants is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not in one (1) of the twenty-eight (28) listed source categories.

(b) These emissions are based on the Technical Support Document (TSD) for T101-7341-00005, issued May 15, 2001.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
APE 1236 Rotary Kiln Incinerator P03	Less than 0.35	Less than 0.35	Less than 1.62	Less than 0.11	Less than 0.35	Less than 39.9	Less than 0.15
PSD Significant Thresholds	25	15	40	40	100	40	NA

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this modification.

(b) The rotary kiln incinerator (P03) does not have a charging rate greater than 50 tons/day and is not used to burn solid waste for the purpose of reducing the volume of the waste by removing combustible matter, and does not meet the “incinerator” definition defined in 40 CFR 60.51. Therefore, the requirements of the New Source Performance Standard for Incinerators (40 CFR 60.50 -60.54, Subpart E) are not applicable to this incinerator.

(c) The proposed incinerator (P03) is a hazardous waste incinerator, and therefore, is subject to the National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (40 CFR 63, Subpart EEE), pursuant to 40 CFR 63.1200. Pursuant to 40 CFR 60.2020(g)(2), units regulated under 40 CFR 63, Subpart EEE are exempt from the requirements of the 40 CFR 60, Subpart CCCC (NSPS for Commercial and Industrial Solid Waste Incineration (CISWI) Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2002). Therefore, the requirements of 40 CFR 60, Subpart CCCC are not applicable to this proposed incinerator.

(d) This proposed incinerator (P03) is a hazardous waste incinerator. Pursuant to 40 CFR 63.1200, this incinerator is subject to the National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Combustors (326 IAC 20-28, 40 CFR 63.1200 - 63.1213, Subpart EEE), and has the applicable requirements listed as follows:

Emission Limitations and Standards

(1) Pursuant to 40 CFR 63.1203(b), the Permittee shall not discharge or cause combustion gases to be emitted into the atmosphere that contain:

(A) Dioxin/Furan in excess 0.20 nanograms toxicity equivalent (TEQ) per dry standard cubic meter (ng TEQ/dscm), corrected to seven percent oxygen.

(B) Mercury in excess 45 microgram per dry standard cubic meter (Fg/dscm), corrected to seven percent oxygen.

(C) Lead and cadmium combined in excess 120 micrograms per dry standard cubic meter (Fg/dscm), corrected to seven percent oxygen.

(D) Arsenic, beryllium, and chromium combined in excess 97 micrograms per dry standard cubic meter (Fg/dscm), corrected to seven percent oxygen.

(E) Carbon monoxide and hydrocarbon emissions shall comply with either (i) or (ii) below:

(i) Hydrocarbons in the main stack shall not exceed 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to seven percent oxygen, and reported as propane; or

(ii) Carbon monoxide in the main stack shall not exceed 100 parts per million by volume, over an hourly rolling average monitored continuously with a continuous emissions monitoring system (CEMS), dry basis and corrected to seven percent oxygen; and in addition, during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by 40 CFR 63.1206(b)(7), hydrocarbons shall not exceed 10 parts per million by volume over an hourly rolling average (monitoring continuously with a CEMS), dry basis, corrected to seven percent oxygen, and reported as propane.

(F) Hydrochloric acid and chlorine gas combined emissions shall not exceed 21 parts per million by volume, expressed as hydrochloric acid equivalents, dry basis, corrected to seven percent oxygen.

(G) Particulate matter (PM) emissions shall not exceed 34 milligrams per dry standard cubic meter.

(2) Pursuant to 40 CFR 63.1203(c), the Permittee shall specify one or more principle organic hazardous constituents (POHCs) from the list of HAPs for each waste to be burned based on the degree of difficulty of treating that constituent and on its concentration or mass in the feed. The Permittee shall achieve a destruction and removal efficiency (DRE) of 99.99% for each POHC. DRE shall be calculated using the equation:

$$DRE = [1 - W_{out}/W_{in}] \times 100\%$$

Where:

W_{in} = mass feedrate of one POHC in a waste feedstream; and
W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere

Performance Testing Requirements

(3) Pursuant to 40 CFR 63.1207(c), the Permittee shall commence the initial comprehensive performance test not later than six months after the compliance date of this subpart.

(4) Pursuant to 40 CFR 63.1207(d), except as otherwise specified in 40 CFR 63.1207(d), the Permittee shall conduct testing periodically as prescribed as follows:

(A) The Permittee shall commence comprehensive performance testing no later than 61 months after the date of commencing the previous comprehensive performance test.

(B) The Permittee shall commence confirmatory performance no later than 31 months after the date of commencing the previous comprehensive performance test.

Compliance Determination and Monitoring Requirements

(5) Pursuant to 40 CFR 63.1209(a)(1)(i), the Permittee shall use either a carbon monoxide or hydrocarbon CEMS to demonstrate and monitor compliance with the carbon monoxide and hydrocarbon standard under this subpart. The Permittee shall also use an oxygen CEMS to continuously correct the carbon monoxide or hydrocarbon level to 7 percent oxygen.

(6) Pursuant to 40 CFR 63.1209(a)(1)(iii), the Permittee shall install, calibrate, maintain, and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under this subpart. However, compliance with the requirements in this section to install, calibrate, maintain and operate the PM CEMS is not required until such time that the Agency promulgates all performance specifications and operational requirements applicable to PM CEMS.

(7) Pursuant to 40 CFR 63.1209(a)(5), the Permittee may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under 40 CFR 63.8(f) in lieu of compliance with the corresponding operating parameter limits under 40 CFR 63.1209.

Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions), IDEM, OAQ has determined that CEMS for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas shall be installed, calibrated, maintained, and continuously operated to demonstrate compliance with the emission standards in 40 CFR 63.1203(b).

(8) Pursuant to 40 CFR 63.1209(j), in order to compliance with the destruction and removal efficiency (DRE) standard, the Permittee shall establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of 40 CFR 63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications, and comply with those limits at all times that hazardous waste remains in the combustion chamber:

(A) Minimum combustion chamber temperature.

(B) Maximum flue gas flowrate or production rate.

(C) Maximum hazardous waste feedrate.

(D) Operation of waste firing system.

Record Keeping and Reporting Requirement

(9) To document compliance with this NESHAP, the Permittee shall comply with the record keeping and reporting requirements specified in 40 CFR 63.1211.

(e) This modification does involve a pollutant-specific emissions unit (incinerator P03) as defined in 40 CFR 64.1:

(1) With the potential to emit before controls equal to or greater than one hundred (100) tons per year, and

(2) Uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard.

However, the proposed incinerator P03 is subject to the NESHAP for Hazardous Waste Combustors (40 CFR 63, Subpart EEE) and this NESHAP was promulgated after November 15, 1990. Pursuant to 40 CFR 64.2(b)(i), this unit is exempt from the requirements of 40 CFR 64 (Compliance Assurance Monitoring).

State Rule Applicability - APE 1236 Rotary Kiln Incinerator (P03)

326 IAC 2-2 (Prevention of Significant Deterioration)

The existing source is a PSD major source and is not in one of the 28 source categories. The potential to emit before control from this modification is greater than 15 tons/yr for PM10, greater than 25 tons/yr for PM, and greater than 40 tons/yr for NO_x. In order for this modification to be considered minor, the Permittee shall comply with the following requirements:

(a) The Net Explosive Weight (NEW) input to incinerator P03 shall not exceed 347 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This is equivalent to 39.9 tons/yr of NO_x emissions from the proposed incinerator.

(b) The baghouse C07 shall be in operation all the time when incinerator P03 is in operation. This is equivalent to 0.35 tons/yr of PM/PM10 emissions from the proposed incinerator.

Therefore, the potential to emit from incinerator P03 is less than 40 tons/yr for NO_x, less than 25 tons/yr for PM, and less than 15 tons/yr for PM10. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The proposed incinerator P03 will be installed after July 27, 1997. However the potential to emit HAPs from this unit is less than 10 tons per year for a single HAP and less than 25 tons per year for any combination of HAPs. In addition, this incinerator is subject to 40 CFR 63, Subpart EEE (NESHAP for Hazardous Waste Combustors). Therefore, the requirements of 326 IAC 2-4.1 (MACT) are not applicable to this unit.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 4-2 (Incinerators)

Incinerator P03 is subject to 326 IAC 4-2 (Incinerators) because it meets the definition of incinerator, "an engineered apparatus that burns waste substances with controls on combustion factors..." contained in 326 IAC 1-2-34. Pursuant to 326 IAC 4-2-2, incinerator P03 shall:

(a) Consist of primary and secondary chambers or the equivalent;

(b) Be equipped with a primary burner unless burning wood products;

(c) Comply with 326 IAC 5-1 and 326 IAC 2;

(d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c); and

(e) Not emit particulate matter in excess of three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators.

If any of the above requirements are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

Note that the existing mobile plasma treatment system (MPTS) is also subject to 326 IAC 4-2. Upon the rule version for 326 IAC 4-2 on November 15, 2002, the PM limit for the incinerators with waste capacity greater than 200 lbs/hr is 0.3 pounds per 1,000 pounds of dry exhaust gas. The existing MPTS has a maximum NEW input rate of 500 lbs/hr. Therefore, the PM limit for the existing MPTS will be changed to 0.3 pounds per 1,000 pounds of dry exhaust gas in the revised permit.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-1(a)(2), incinerators are exempt from the requirements of 326 IAC 6-2. Therefore, the requirements of 326 IAC 6-3-2 (Process Operations) are not applicable to incinerator P03.

326 IAC 9-1-2(3) (CO Emissions from Refuse Incineration and Refuse Burning Equipment)

The proposed incinerator P03 is not a refuse incinerator or refuse burning equipment. Therefore, the requirements of 326 IAC 9-1-2(3) are not applicable to this unit.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

1. The APE 1236 incinerator (P03) has applicable compliance monitoring conditions as specified below:

   Visible emissions notations of the stack S03 shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

   These monitoring conditions are necessary because the baghouse for the APE 1236 incinerator (P03) must operate properly to ensure compliance with 40 CFR 63, Subpart EEE and 326 IAC 4-2 (Incinerators).

Proposed Changes

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] **[326 IAC 2-7-1(22)]**

The Permittee owns and operates a military base where ammunition, rockets and other military ordnance are manufactured, stored and disposed.

Responsible Official:	~~Captain T. Scott Wetter~~**Environmental Director**
Source Address:	300 Highway 361, Crane, Indiana 47522-5009
Mailing Address:	~~Code 09510 Building 3260,~~ 300 Highway 361, **Building 3260, Code 09510,** Crane, Indiana 47522
~~Contact Person:~~	~~Mr. Shashi Kumar~~
Phone Number:	(812) 854-~~6156~~**3233**
SIC Code:	9711, 3483
County Location:	Martin
Source Location~~County~~ Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act **Not 1 of 28 Source Categories**

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

. . . . . .

(d) Twenty-nine (29) paint booths:

(21) CRN-0198-23-II15, located in Building 198, constructed in ~~1980~~**1975**, using a dry filter to control particulate matter emissions.

. . . . .

(v) One (1) APE 1236 rotary kiln incinerator, identified as P03, used to deactivate (combust) the munitions and associated components , with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as

C05, for PM control), one (1) 8 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

SECTION D.4 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(d) Twenty-nine (29) paint booths:

. . . . .

(21) CRN-0198-01-23-II15, located in Building 198, constructed in ~~1980~~ **1975**, using a dry filter to control particulate matter emissions.

. . . . .

D.4.3 General Provisions Relating to VOC Rules: Military Specifications [326 IAC 8-1-7] and Site-specific RACT Plan [326 IAC 8-1-5]

...

(b) Pursuant to 326 IAC 8-1-7 (Military Specifications) and Site-specific RACT plan [326 IAC 8-1-5] the volatile organic compounds (VOC) content of coating delivered to the following:

(1) CRN-0104-01-23-HH16, located in Building 104, constructed in 1983;
(2) CRN-0104-02-23-HH16, located in Building 104, constructed in 1983;
(3) CRN-~~0104~~**0107**-01-23-HH13, located in Building 107, constructed in 1980;
(4) CRN-~~0104~~**0107**-02-23-HH13, located in Building 107, constructed in 1980;
(5) CRN-~~0104~~**0107**-03-23-HH13, located in Building 107, constructed in 1980;
(6) CRN-~~0104~~**0107**-04-23-HH13, located in Building 107, constructed in 1980;
(7) CRN-~~0104~~**0155**-02-17-BB25, located in Building 155, constructed in 1986;
(8) CRN-~~0104~~**0155**-03-17-BB25, located in Building 155, constructed in 1986;
(9) CRN-~~0104~~**0155**-04-17-BB25, located in Building 155, constructed in 1986; and
(10) CRN-~~0104~~**2697**-01-17-W24, located in Building 2697, constructed in 1983;

shall be limited to no greater than 5.45 pounds of VOCs per gallon of coating less water, for air dried coatings for each paint booth.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

SECTION D.22 FACILITY OPERATION CONDITIONS ~~- Mobile Plasma Treatment System~~

Facility Description [326 IAC 2-7-5(15)]:

(r) One (1) mobile plasma treatment system (MPTS), identified as P02, located near Building 69, with a maximum capacity of 3600 pounds per hour gross weight of explosives, 500 pounds per hour net explosive weight (NEW), equipped with one (1) afterburner for VOC and CO control, one (1) semi-dry scrubber for HCl and PM control, and one (1) Selective Catalytic Reduction (SCR) unit for NO_x control and exhausting at stack S02. The semi-dry scrubber is composed of an evaporative cooler, sodium bicarbonate injection, and a pulse-jet baghouse.

(s) One (1) diesel-fueled, 4160-volt, 1000 kW generator which powers the MPTS exhausting at stack S03.

(v) One (1) APE 1236 rotary kiln incinerator, identified as P03, used to deactivate (combust) the munitions and associated components, with a maximum feed rate of 240 pounds of net explosive weight (NEW) per hour and a maximum heat input rate of 3 MMBtu/hr. The waste stream vents through one (1) cyclone (identified as C05, for PM control), one (1) 8 MMBtu/hr natural gas-fired afterburner (identified as C06, for VOC and CO control), and one (1) baghouse (identified as C07, for PM control) and exhausts through stack S03.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.22.1 PSD Minor Net Emission Increase Limit [326 IAC 2-2][40 CFR 51.21]

(a) The MPTS shall be limited to 1800 hours per year and the total amount of diesel fuel used in the generator engine shall be limited to 89,604 gallons per twelve (12) consecutive month period **with compliance determined at the end of each month**. This will limit the NOx emissions from the MPTS (with generator) to less than 25.41 tons per year and the CO emissions to less than 2.91 tons per year. These limits, together with the limits on the CDC in Condition D.21.1, are required to limit the potential to emit of NOx and CO to less than 40 tons and 100 tons, respectively, per twelve (12) consecutive month period. Compliance with these limits makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

(b) The net explosive weight (NEW) of the materials fed into the APE 1236 incinerator (P03) shall not exceed 347 tons per consecutive twelve (12) month period with compliance determined at the end of each month. This is equivalent to 39.9 tons/yr of NO_x emissions, which is less than 40 tons/yr.

(c) The baghouse C07 shall be in operation at all times when the APE 1236 incinerator (P03) is in operations. This is equivalent to 0.35 tons/yr of PM/PM10 emissions from incinerator P03, which is less than 25 tons/yr for PM and less than 15 tons/yr for PM10.

Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

D.22.3 Incinerator Requirements [326 IAC 4-2]

Pursuant to 326 IAC 4-2, the **MPTS (P02) and the APE 1236 (P03)** incinerator shall:

(a) Consist of primary and secondary chambers or the equivalent;

(b) Be equipped with a primary burner unless burning wood products;

(c) Comply with 326 IAC 5-1 and 326 IAC 2;

~~(d) Be maintained properly as specified by the manufacturer and approved by the commissioner;~~

~~(e) Be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;~~

~~(f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;~~

~~(g) Be operated so that emissions of hazardous material including but not limited to viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;~~

(d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c); and

(**e**~~h~~) Not emit particulate matter in excess of **three**~~five~~-tenths (**0.3**~~0.5~~) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard condition corrected to fifty percent (50%) excess air**.**~~; and~~

~~(i) Not create a nuisance or fire hazard.~~

If any of the above requirements are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

~~If any of the above result, the burning shall be terminated immediately.~~

D.22.4 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR 63, Subpart A]

The provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1, apply to the MPTS **(P02) and the APE 1236 incinerator (P03)** as described in this section except when otherwise specified in 40 CFR 63, Subpart EEE.

D.22.5 NESHAP Emissions Limitation [40 CFR 63.1203(b), Subpart EEE]

The following emission limits apply **to the MPTS (P02) and the APE 1236 (P03)**:

. . . . .

(h) When hazardous waste is not in ~~the plasma chamber~~**place** and the Permittee has documented in the operating record that the source is complying with all other applicable requirements of this permit, 40 CFR Subpart EEE shall not apply except for the notification, reporting, and record requirements of sections 63.1203 through 63.1205; the monitoring and compliance standards of this section and sections 63.1207 through 63.1209, except the modes of operation requirements of section 63.1209(q); and the notification, reporting, and recordkeeping requirements of sections 63.1210 through 63.1212.

D.22.7 Automatic Waste Feed Cutoff (AWFCO) [40 CFR 63.1206(c)(3), Subpart EEE]

The Permittee shall operate the MPTS **(P02) and the APE 1236 incinerator (P03)** with a functioning system that immediately and automatically cuts off the hazardous waste feed, except during a ramp down procedure under the following conditions:

D.22.8 Establishing Feedrate Limits [40 CFR 63.1209]

(a) In order to demonstrate compliance with the destruction and removal efficiency of Condition D.22.6 and the standards of Condition D.22.5, the Permittee must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed. These limits must be established as the average of the maximum hourly rolling averages for each run. The

Permittee must also establish a 12-hour rolling average limit for the feedrate of mercury, semivolatile and low volatile metals, chlorine and chlorides. [**40 CFR** 63.1209(j)(3), (k)(4), (l)(1), (n)(2), (o)(1)]

(b) Prior to feeding the material, the Permittee must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits.

(2) The Permittee must submit the feedstream analysis plan to IDEM, OAQ for review and approval, if requested [**40 CFR** 63.1209(c)]

D.22.10 Operator Training and Certification [40 CFR 63.1206(c)(6), Subpart EEE]

(a) The Permittee shall establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions.

(1) The Permittee shall ensure that the MPTS **(P02)** ~~is~~ **and the APE 1236 incinerator (P03) are** operated and maintained at all times by persons who are trained and certified to perform these duties.

(2) A certified control room operator must be on duty at the site at all times the source is in operation. A hazardous waste incinerator control room operator must:

(A) Be trained and certified under a site-specific, source-developed and implemented program that meets the requirements of paragraph ~~§~~ **40 CFR** 63.1206(c)(6)(v); or

(3) To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by paragraph ~~§~~ **40 CFR** 63.1206(c)(6)(v), control room operators must complete an annual review or refresher course.

D.22.11 Operation and Maintenance [326 IAC 2-7-5(13)][40 CFR 63.1206(c)(7), Subpart EEE]

(a) The Permittee must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the MPTS **(P02) and the APE 1236 incinerator (P03)**, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants.

(b) The plan must prescribe how the MPTS **(P02) and the APE 1236 incinerator (P03)** will be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.

(c) This plan ensures compliance with the operation and maintenance requirements of ~~§~~ **40 CFR** 63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs, and malfunctions.

D.22.12 Broken or Failed Bag Detection [40 CFR 63.1206(c) (7)(ii)(D)]

For the MTPS (P02) and the APE 1236 incinerator (P03), t~~T~~he Permittee must continuously operate a bag leak detection system that meets the specifications and requirements below and must comply with the corrective measures requirements of paragraph ~~§~~ **40 CFR** 63.1206(c)(7)(ii)(B):

(a) The bag leak detection system must be certified by the manufacturer to be capable of continuously detecting and recording particulate matter emissions at concentrations of 1.0 milligram per actual cubic meter, unless it is demonstrated, pursuant to ~~§~~ **40 CFR** 63.1209(a)(1), that a higher sensitivity would adequately detect bag leaks;

D.22.13 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1-3(i)(8)] [326 IAC 2-1.1-11] [40 CFR 63.1207, Subpart EEE]

(a) No later than six months after the MPTS **(P02) and the APE 1236 incinerator (P03)** begins operation, the Permittee shall demonstrate initial compliance with the emission limits established in Condition D.22.5 by commencing initial comprehensive performance tests in accordance with 40 CFR 63.1207 and Section C - Performance Testing. These tests shall also establish limits for the operating parameters as provided in 40 CFR 63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems (CMS). The testing must be completed within 60 days after the date of commencement. Comprehensive performance tests shall be repeated at least once every 61 months from the date of the most recent valid compliance demonstration. Based on the results of previous stack tests, IDEM may, at its discretion, allow the Permittee to skip one test cycle.

(b) The Permittee shall commence confirmatory performance testing no later than 31 months after the date of commencing the previous comprehensive performance test. The testing must be completed within 60 days after the date of commencement. Confirmatory performance tests are conducted to:

(2) Conduct a performance evaluation of continuous monitoring systems required for compliance assurance with the dioxin/furan emission standard under ~~§~~ **40 CFR** 63.1209(k).

. . . . . .

(d) Pursuant to 326 IAC 3-6-3(b), during the performance tests, the MPTS **(P02) and the APE 1236 incinerator (P03)** must be operating at 95 percent of its maximum production capacity or more, or under other capacities or conditions specified and approved by IDEM, to be considered a valid test.

D.22.14 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-7-6(1),(6)] [40 CFR 63, Subpart A]

. . . . . .

(b) Pursuant to 40 CFR 63, Subpart EEE, a CEMS shall be installed, calibrated, maintained, and operated to demonstrate compliance with the carbon monoxide and hydrocarbon limits specified in 40 CFR 63 and Condition D.22.5. An oxygen CEMS shall also be installed, calibrated, maintained, and operated to continuously correct the carbon monoxide and hydrocarbon levels to 7 percent oxygen. [**40 CFR** 63.1209(a)(1)(i)]

(c) The Permittee must install, calibrate, maintain, and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under Condition D.22.5(g). However, compliance with the requirement to install, calibrate, maintain and operate the PM CEMS in not required until such time that the EPA promulgates all performance specifications and operational requirements applicable to PM CEMS. [**40 CFR** 63.1209(a)(1)(iii)]

D.22.15 Monitoring [40 CFR 63.1209]

. . . . .

(b) In order to demonstrate compliance with the destruction and removal efficiency standard of Condition D.22.6 and the emission standards of Condition D.22.5(a) for dioxins and furans, the Permittee must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The Permittee must document the temperature measurement location in the test plan. The limits must be established as minimum hourly rolling average limits as the average of the test run averages. [~~§~~**40 CFR** 63.1209(j)(1) and (k)(2)]

(c) In order to demonstrate compliance with the destruction and removal efficiency standard of D.22.6 and the emission standards of D.22.5(a), (c), (d), (f) and (g) for dioxin and furans, semivolatile and low volatile metals, and hydrochloric acid and chlorine gas, the Permittee must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the Permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. [**40 CFR** 63.1209(j)(2), (k)(3), (m)(2), (n)(5), and (o)(2)]

(d) In order to demonstrate compliance with the destruction and removal efficiency standard of Condition D.22.6, the Permittee must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained. [**40 CFR** 63.1209 (j)(4)]

(e) In order to demonstrate compliance with the dioxin and furan, semivolatile metals and low volatile metals standards of Condition D.22.5(a), (c) and (d), and for combustors equipped with fabric filters, the Permittee must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. The Permittee must establish the hourly rolling average limit as the average of the test run averages. [**40 CFR** 63.1209(k)(1) and (n)(1)]

(f) In order to demonstrate compliance with the particulate matter and semivolatile and low volatile standards of Condition D.22.5(c), (d) and (g), the Permittee must install, calibrate, operate, and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of paragraph ~~S~~ **40 CFR** 63.1209(m)(1)(iv)(A)(*1*) of this section. The Permittee must install, calibrate, and maintain the monitoring equipment in accordance with the equipment manufacturer's specifications. The recorder must record the detector responses at least every 60 seconds. [**40 CFR** 63.1209 (m)(1)(iv)(4)(B) and (n)(3)]

(g) In order to demonstrate compliance with the particulate matter standard of Condition D.22.5(g), the Permittee must establish a maximum ash feedrate limit as the average of the test run averages. [**40 CFR** 63.1209(m)(3)]

(h) In order to demonstrate compliance with the hydrochloric acid and chlorine gas standard of Condition D.22.5(f) for combustors equipped with dry scrubbers, the Permittee must establish the following operating parameter limits:

(3) *Sorbent specifications*. The Permittee must specify and use the brand (i.e., manufacturer) and type of sorbent used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless the Permittee documents in the site-specific performance test plan that affect adsorption and establish limits on those parameters based on the sorbent used in the performance test. [**40 CFR** 63.1209(o)(4)]

D.22.16 Visible Emissions Notations

(a) Visible emission notations of the MPTS **(P02) and the APE 1236 incinerator (P03)** baghouse stack exhaust**s** and the generator stack shall be performed once per shift during normal daylight operations when the MPTS ~~is~~ **(P02) and the APE 1236 incinerator (P03) are** in operation. A trained employee shall record whether emissions are normal or abnormal.

D.22.17 Record Keeping Requirements

. . . . . .

(b) To document compliance with Condition D.22.1**(a)**, the Permittee shall maintain records of the hours of operation of the MPTS and the fuel usage by the generator.

. . . . .

(d) To document compliance with Condition D.22.1(b), the Permittee shall maintain records of the total amount of the Net Explosive Weight (NEW) of the materials fed to the APE 1236 incinerator (P03) each month.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.22.19 Reporting Requirements

A quarterly summary of the information to document compliance with Condition**s** D.22.1**(a) and D.22.1(b)** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Naval Surface Warfare Center, Crane Division
Source Address: 300 Highway 361, Crane, Indiana 47522
Mailing Address: 300 Highway 361, Building 3260, Code 09510, Crane, Indiana 47522
Part 70 Permit No.: 101-7341-00005
Source Modification No: 101-17239-00005
Facility: APE 1236 rotary kiln incinerator (P03)
Parameter: Net explosive weight (NEW) input
Limit: Less than 347 tons of NEW per twelve (12) consecutive month period with compliance determined at the end of each month

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This month	Previous 11 months	12 months total
Month 1			
Month 2			
Month 3			

9 **No deviation occurred in this quarter.**

9 **Deviation/s occurred in this quarter.**
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the proposed Part 70 Significant Source Modification No. 101-17239-00005, and the operation of this proposed modification shall be subject to the conditions of the proposed Part 70 Significant Permit Modification No. 101-17317-00005.

Appendix A: Emission Calculations
SO_2, NO, CO, and Pb Emissions
From the APE 1236 Rotary Kiln Incinerator P03

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Hightway 361, Crane, IN 47522
SSM: 101-17239-00005
Reviewer: ERG/YC
Date: June 25, 2003

Max. Feed Rate		Annual Feed Limit	
240	(lbs/hr)	347	(tons/yr)
Net Explosive Weight (NEW)		Net Explosive Weight (NEW)	

	Pollutant			
	*SO_2	*NO_x	*CO	**Pb
Emission Factor (lbs/lbs)	0.0047	0.115	0.001	1.15E-04
Potential Emissions (ton/yr)	**4.90**	**121**	**1.06**	**0.12**
Limited Potential to Emit (ton/yr)	**1.62**	**39.9**	**0.35**	**0.04**

* Emission factors are from the trial burns for the same unit conducted at the McAlester, Okahoma by the US Army Center for Health Promotion and Preventive Medicine (USCHPPM) on February 17 to March 14, 1997. These emission factors are the worst case senarios and emissions from NG combustion process in the associated afterburner are included also. Note that the CO emission factor is the one after the control of the associated afterburner. The CO control efficiency of the afterburner is unknown.

**Emission factors are from "Health Risk Assessment for Military Munitions Treatment Facilities at Sierra Army Depot", Table 2-19 - Deactivation Furnaces, 1996.

Methodology

Potential Emissions (tons/yr) = Max. Feed Rate (lbs/hr) x Emission Factor (lbs/lbs) x 8760 hr/yr x 1 lbs/2000ton
Limited Potential to Emit (tons/yr) = Annual Feed Limit (ton/yr) x Emission Factor (lbs/lbs)

Appendix A: Emission Calculations
PM/PM10 Emissions
From the APE 1236 Rotary Kiln Incinerator P03

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Hightway 361, Crane, IN 47522
SSM: 101-17239-00005
Reviewer: ERG/YC
Date: June 25, 2003

1.Process Description:

Primary PM Control Equipment: Baghouse C07
Grain Loading: 0.0008 grains/acf
Air Flow Rate: 11,697 acf/m
Control Efficiency: 99.0%

Note: This incinerator is also controlled by a cyclone C05.

2. Potential to Emit After Control:

Assume All the PM emissions equal PM10 emissions.

Hourly PM/PM10 Emissions = 0.0008 (gr/acf) x 11697 (acf/min) x 60 (min/hr) x 1/7000 (lb/gr) = **0.08 lbs/hr**

Annual PM/PM10 emissions = 0.08 lbs/hr x 8760 hr/yr x 1/2000 (ton/lb) = **0.351 tons/yr**

3. Potential Uncontrolled Emissions:

Potential PM/PM10 emissions = 0.351 tons/yr / (1-99.0%) = **35.1 tons/yr**

Appendix A: Emission Calculations
VOC/HAP Emissions
From the APE 1236 Rotary Kiln Incinerator P03

Company Name: Naval Surface Warfare Center, Crane Division
Address: 300 Hightway 361, Crane, IN 47522
SSM: 101-17239-00005
Reviewer: ERG/YC
Date: June 25, 2003

Maximum Feed Rate:	**240**	lbs/hr Net Explosive Weight
Annual Feed Limits:	**347**	tons/yr Net Explosive Weight

Organic HAPs	*Emission Factor (lbs/lbs)	Potential Emissions after Controls (tons/yr)	Limited Potentail to Emit after Controls(tons/yr)
Benzene	5.60E-06	5.89E-03	1.94E-03
Bis phthalatte (DEHP)	2.00E-07	2.10E-04	6.94E-05
Carbon tetrachloride	3.50E-08	3.68E-05	1.21E-05
Chlorobenzene	5.20E-08	5.47E-05	1.80E-05
Chloroform	1.60E-07	1.68E-04	5.55E-05
Dibutylphthalate	1.00E-04	0.11	0.035
2,4 Dinitrotoluene	1.00E-04	0.11	0.035
Hexachlorobenzene	1.00E-04	0.11	0.035
Methylene Chloride	9.50E-08	9.99E-05	3.30E-05
Naphthalene	1.90E-06	2.00E-03	6.59E-04
Phenol	2.70E-06	2.84E-03	9.37E-04
Tetrachloroethylene	1.30E-08	1.37E-05	4.51E-06
Toluene	6.90E-08	7.25E-05	2.39E-05
Trichloroethylene	2.30E-07	2.42E-04	7.98E-05
Total VOC/Organic HAPs		**0.33**	**0.11**

*Emission factors are from "Health Risk Assessment for Military Munitions Treatment Facilities at Sierra Army Depot", Table 2-19 - Deactivation Furnaces, 1996. Note that these emission facctors are the ones after the control of the associated afterburner. However, the control efficiency for each compound is unknown.

Methodology

Potential Emissions after Controls (tons/yr) = Max. Feed Rate (lbs/hr) x Emission Factor (lbs/lbs) x 8760 hr/yr x 1 ton/2000 lbs
Limited PTE after Controls (tons/yr) = Limited Feed Rate (tons/yr) x Emission Factor (lbs/lbs)